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THE AMERICAN ELEVATOR AND GRAIN TRADE

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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
Mitchell Brothers Publishing Co.

VOL. XXXI.

CHICAGO, ILLINOIS, APRIL 15, 1913.

No. 10.

One Dollar Per Annum.
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of your belt separate like
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"R. F. & C." Solid Woven Rubber Belt

The "R. F. & C." gives MAXIMUM of strength and
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Pioneer Rubber Belt Manufacturers in the West
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Be sure it's the
"MOHAWK"

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Consign your Grain and Field Seeds to

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Timothy Our Specialty

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Saves time and labor which are money.

Saves fretting and sweating and demurrage bills.

Saves its cost in wear of other scoops.

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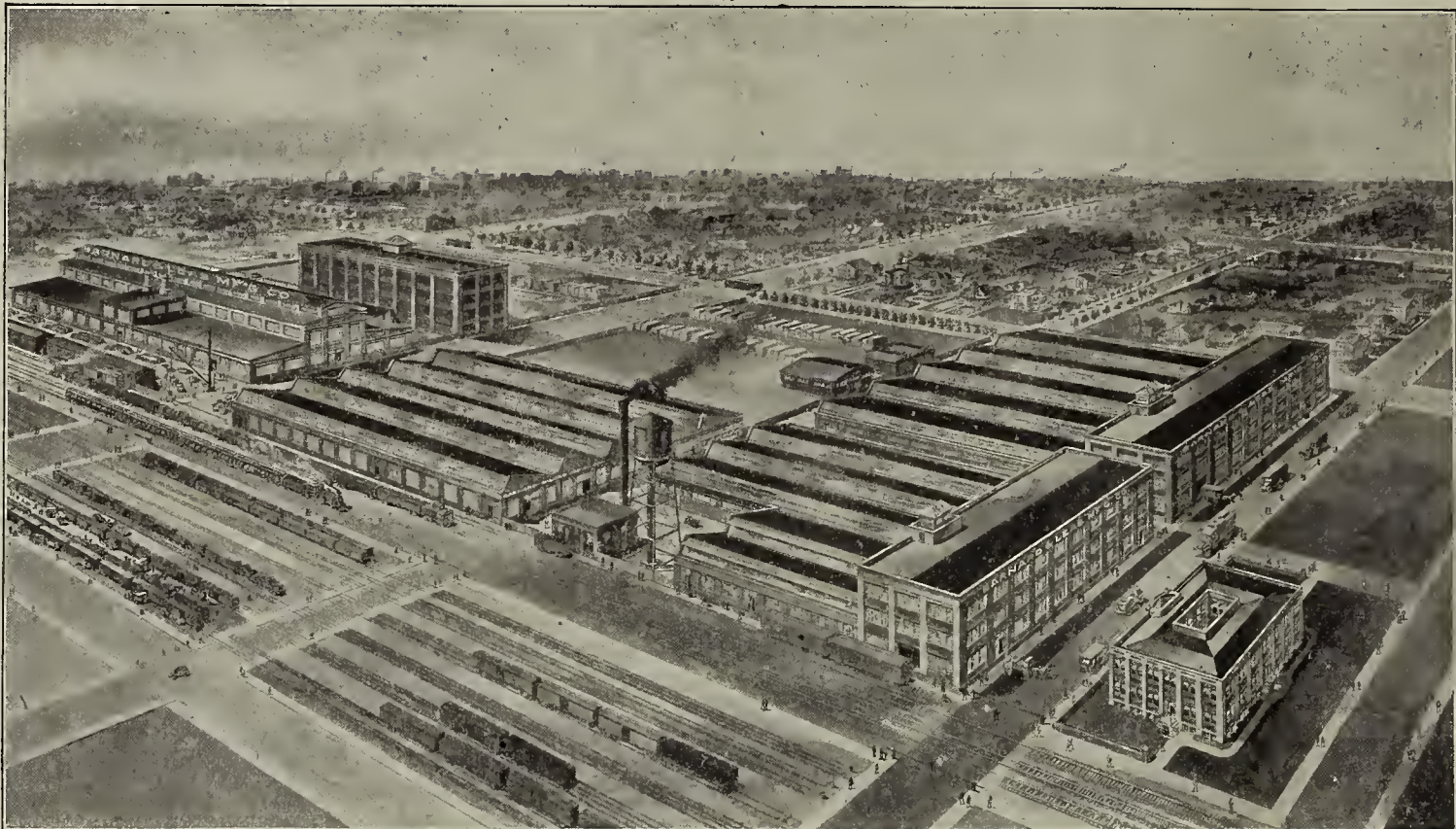
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New Tools New Appliances New Conveniences
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This is a Full Line House

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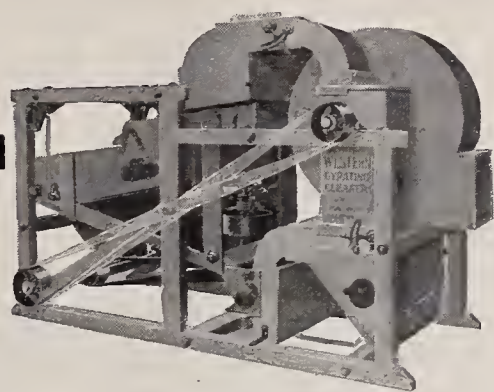
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The "Western" line is the result of nearly 50 years
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The superiority of the "Western" line lies in the
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arrangement, simple operation and efficient service,
thereby insuring larger profits and unerring success.

It stands for **simplicity, superiority and
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Ask any operator using "Western" machinery.

We carry a complete line of grain cleaning, han-
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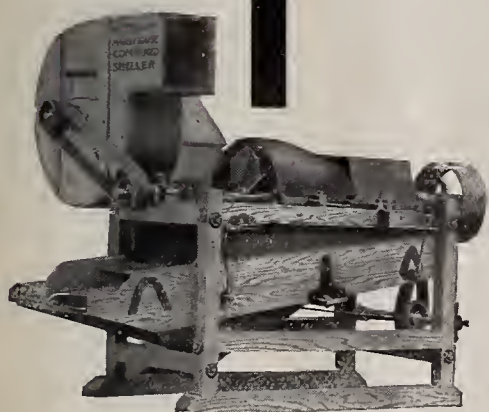
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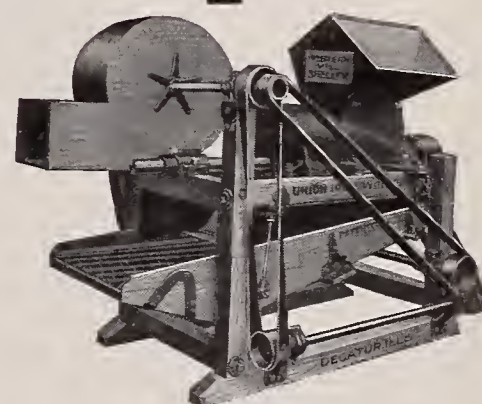
"Western" Pitless Sheller



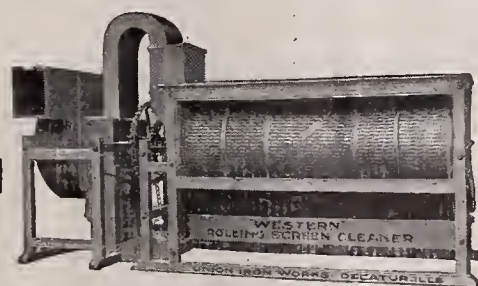
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"Western" Rolling Screen Cleaner

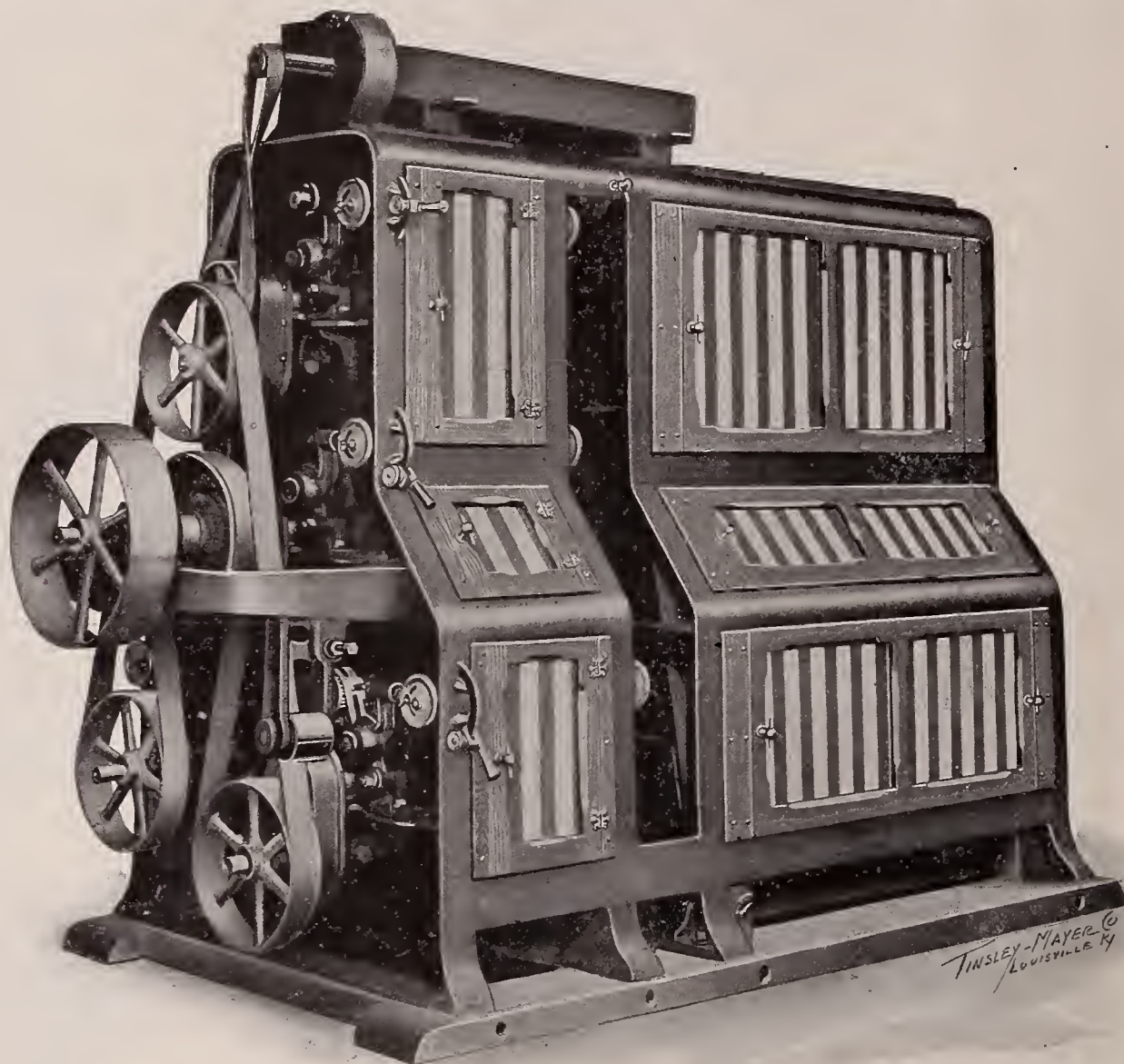
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Why not investigate the proposition to turn **your Elevator** into the best money maker.

Read what two Elevator owners have to say of their "Midget" Marvel—neither of them knew anything about flour making until they put in this wonderful mill. It is so simple that any intelligent man can successfully operate it and make good flour. Then too, it takes only about 4 H. P., which your engine can furnish and not miss.

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Gentlemen:—The flour made on our "Midget" Marvel is giving extra good satisfaction and beyond our expectation. As it looks to us now, the proposition here has a bright future. The mill is a great wonder to all, and have had some very good men looking it over, principally grain men. We extend our regards to all who have come in contact with our deal.

Yours respectfully,
McCOMAS & HORNBECK.

Jamestown, Kan., August 15, 1912.

Anglo-American Mill Co., Owensboro, Ky.,

Gentlemen:—Our "Midget" milled flour is selling readily in the towns of Jewell City, Randall, Scottsville, Kackley, Burr Oak, Mankato and Concordia. We have sold a carload in Concordia, right where they have a 500-barrel mill. Now, Mr. Little, if you come to Kansas this fall, don't fail to be our guest; we will have a royal time and show you the most complete "Midget" milling plant in the world.

Yours respectfully,
GIFFORD BROS.

LATER—March 1, 1913.

"We want to say to you at this time, that we consider the 'Midget' the best investment we have ever made."
Respectfully, GIFFORD BROS.

30 days' free trial—our guarantee reads as follows: "We further guarantee the **buyer** complete satisfaction and leave it entirely with **him** to say whether the "Midget" Marvel comes up to our description, guarantee and **his expectation.**" Could anything be stronger?

Write for our latest booklet "The Story of a Wonderful Flour Mill." We will be glad to send it to you.

THE ANGLO-AMERICAN MILL CO.

404 Central Trust Building,

OWENSBORO, KENTUCKY

— "A Better Barrel of Flour Cheaper" —

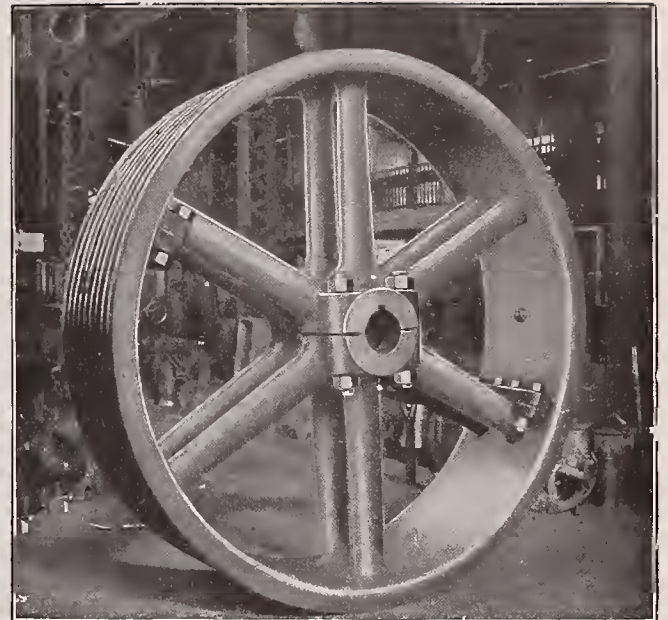
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We design and install complete rope drives. We are experienced in this line, and drives designed by us are successful. We supply the best grade of Manilla rope. Our **Machine-molded sheaves** are perfect in balance, accurately finished and free from flaws injurious to the rope.

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International Sugar Feed Co.

Minneapolis, Minnesota

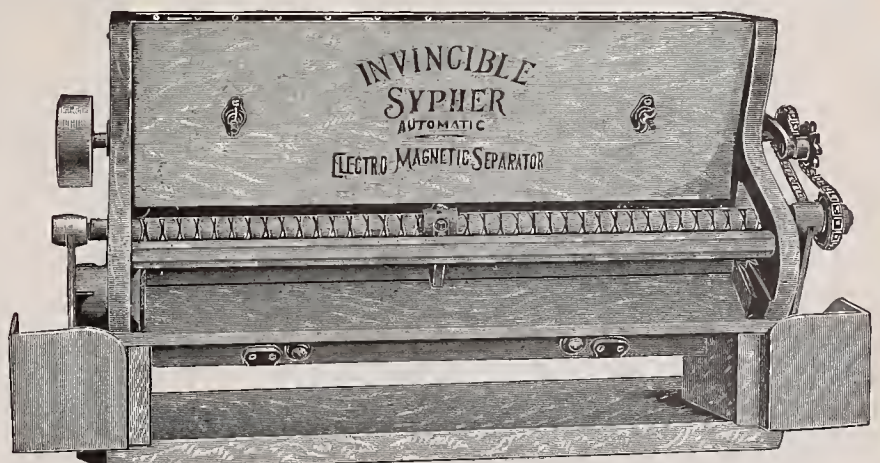
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These feeds are unequalled in nutritive value. Sold by dealers everywhere

THE INVINCIBLE-SYPHER

Electro Automatic Magnetic Separator



Very Durable—Small Consumption of Current

Will positively remove all iron from the grain.

Has retaining force of 500 pounds, making it impossible for any iron to pass it.

This machine does not deteriorate with age—on the contrary actually becomes more efficient with use.

We are prepared to furnish a small inexpensive dynamo for it where current is not available.

INVINCIBLE GRAIN CLEANER COMPANY

SILVER CREEK, N. Y., U. S. A.

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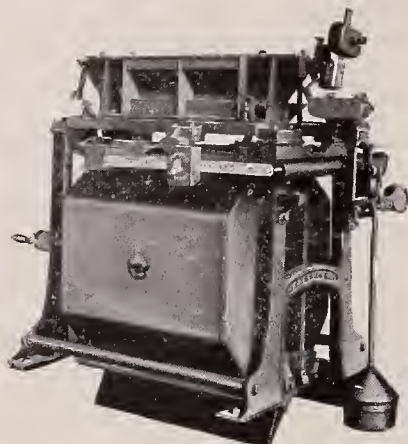
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Continuous Weighers

Double Compartment Hopper. One side always filling while the other is dumping.

Occupy
Least
Floor
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All Working
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Floor

Accurate

Can be tested while operating. Grain cannot pass through without being weighed.

Simple

No adjustments to work loose or get out of order. Easy to operate.

Durable

Last a lifetime when given proper care.

Send for Catalog No. 544Q5. It tells of the economy of these scales.

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Oil and Gasoline Engines, Electric Motors, Electric Lighting Plants, Feed Grinders, Pumps.

HESS

Grain Driers

All sizes, for all purposes.

Improved BROWN -DUVEL Moisture Testers

High steel stands with shelves; copper flasks; brass tubes for gas, gasoline, alcohol or electricity; oil storage reservoirs.

These protect the grain man against incorrect judgment in buying, against deterioration of grain in storage. They enable him to improve his grain and to tell with absolute certainty that it will make the grade he wishes.

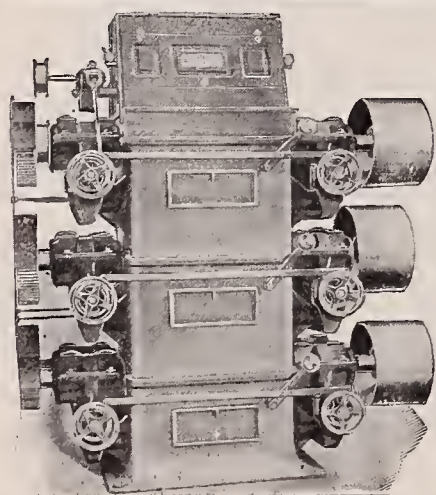
They are his best INSURANCE against loss, and they win profits not obtainable otherwise. Hundreds of dealers equipped themselves in 1912. *What are your needs for 1913?*

Hess Warming & Ventilating Co.

910 Tacoma Building, CHICAGO

A new moisture tester booklet with latest and complete instructions for testing all kinds of grain, is just from the press. Every grain dealer should have one. Ask us for it.

It's Time to be Up and Doing



Wolf Jumbo Three Pair High Feed Mill

This mill will do service season in and season out for a long number of years. It is so massive, so strong and so powerfully built that feed grinding, even though of an unusually heavy nature, is done upon it with utmost ease and little expense.

It will grind everything that may be classed as feed, barring nothing; and, by reason of the easy and perfect method of roll adjustment, it may be arranged to grind to absolutely any degree of fineness.

In construction, it is very simple. Consists of three sets of rolls, heavy cast iron sectional frame, driving mechanism and feeder. A mill of accepted and exceptional merit.

Crop time is just two laps the other side of next month. Harvest will come. Grain will be thrashed and hauled to the markets. Dealers will resume speculative activities.

But—

Your elevator, or mill, is it in the best of shape? Is it in condition to handle *your* share of the crops in *your* territory? It's a mighty sensible scheme to be prepared in plenty of time, you know.

To make sure of being "on the job" when the time comes, we suggest that you inspect your plant NOW—*today*, and then let us have your order for the necessary new equipment. You are pretty sure to need some.

Our thirty-five years of experience in mill building has taught us a few things about the game that are not to be learned from books.

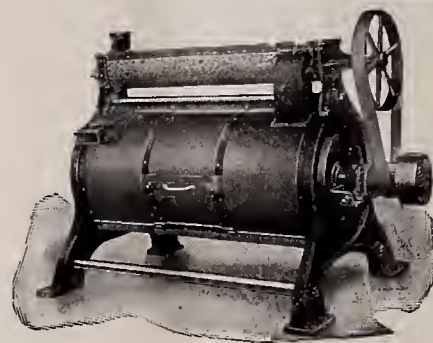
Don't you believe it's a good plan to put your problems up to practical men?



We have a representative in your territory. You write us, stating your requirements; then we'll write him and instruct him to call upon you and figure on your job. That is if you are in favor.

THE WOLF COMPANY

CHAMBERSBURG, PA.



Wolf Wheat Washing Conveyor and Dryer

It used to be when anyone would mention the milling of smutty wheat everyone else would throw up their hands and yell "It can't be done!" And it couldn't be done, either—according to the rules of good milling.

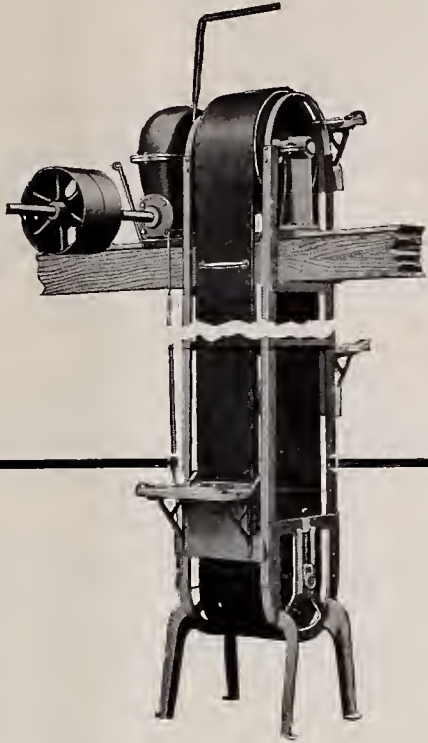
But the Wolf Wheat Washing Conveyor and Dryer has brought about a great change.

Nowadays a miller can buy wheat that is fairly polluted with smut, run it through this machine and transform it into good, clean millable grain.

Simply the action of water, friction, centrifugal force and air that turns the trick.

Requires but little room, little attention, little knowledge and costs but little to operate.

You have use for this machine if you expect to handle any smutty wheat this season.



A Reliable Service Elevator

is now regarded as a necessity in every well appointed mill, grain elevator and warehouse. In the N. & M. Co. service elevator, the mechanical construction, convenience of operation and general usefulness have been improved to a marked extent, resulting in a far more substantial and durable construction, saving in power, absolute dependability and greater safety to the users. Besides being a handy and practical passenger elevator, this time and energy saving device is frequently used for handling packages, material in bags, etc. It is built in heights to suit your conditions.

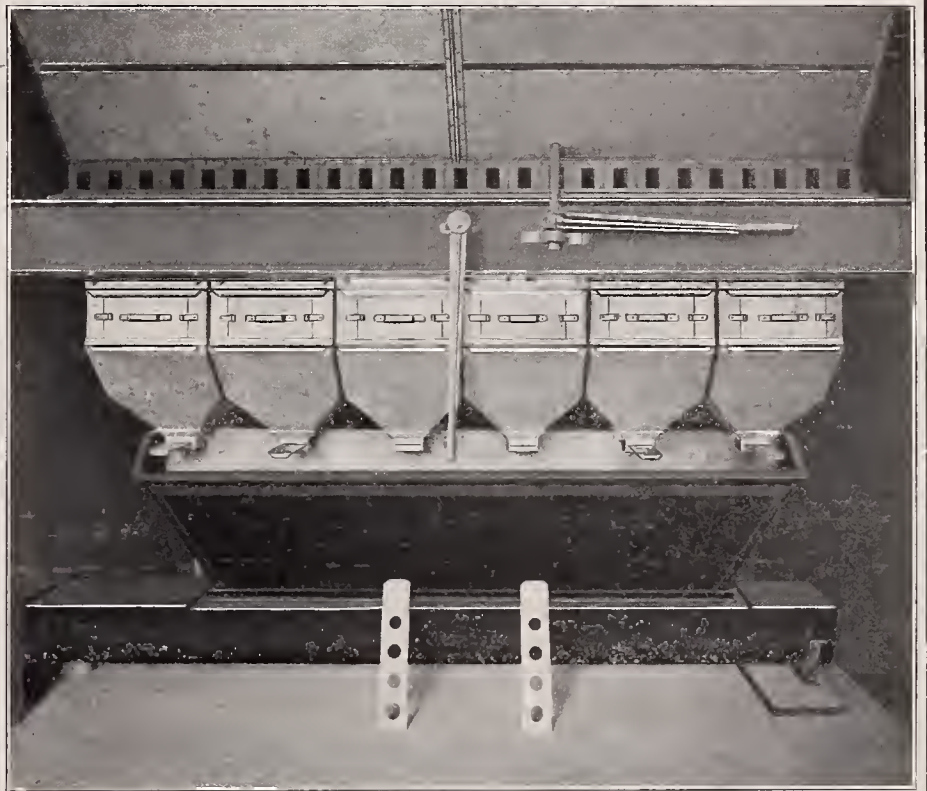
Our circular No. 1200 tells you about these service elevators. Write for it.

Nordyke & Marmon Co.

America's Leading Mill Builders

Indianapolis, Indiana

THE ELLIS DRIER CO.



Showing the arrangement of feed hoppers below drier erected for the Turner Hudnut Co., Pekin, Illinois.

THE half tone shown above is illustrative of the ease by which an Ellis Drier may be operated. The dried product flows continuously from the steel feed hoppers, the rate of flow being regulated by the various sized slides as shown in the cut. At no time does the operator need to leave the ground floor.

The continuous system owing to the constant movement of the grain in the drying chamber aids greatly in producing an evenly dried product; it can be accurately gauged to remove a very low percentage of moisture, and insures a maximum capacity at all times. The time lost and trouble experienced by the old method of continually dumping and refilling is completely eliminated.

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CHICAGO, U. S. A.

NOT A BILL OF EXPENSE BUT A SOURCE OF REVENUE

Enables
Shippers
to
Collect
Claims
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Requires
No
Repairs
—
Occupies
Small
Space
—
Most
Economical
to
Install



PORTABLE BAGGER

Write for Catalog.

No Bother
to
Operate
—
Never
Gets Out
of
Order
—
Will Not
Rust
or
Wear Out
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60 Days'
Trial

National Automatic Scale Co.
West Pullman, Chicago, Illinois

Making Wonderful Endurance Records For Big Mills and Elevators

There could be no better evidence of the quality of Goodrich Grain Belts and the fact that they would mean economy to you than the remarkable service they are giving to concerns whose conveying problems are almost identical with yours.

Here is a Typical Example of the
Durability of

Goodrich Grain Belts

—an experience in the elevator of the Electric Grain Elevator Co., Buffalo. "We have two conveyor belts in our gallery, each seven hundred feet long, which have been running nine years, handling approximately one hundred million bushels of grain, and are still in good condition."

Let us send you list of other users of Goodrich Grain Belts, samples of our belts and full information.

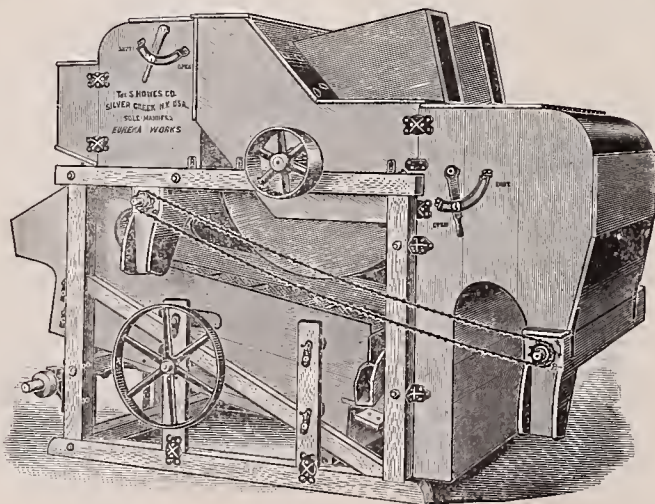
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Factories
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Branches in all leading cities

The "EUREKA" Elevator Separator



HEAVY DUTY CONSTRUCTION

America's Favorite Grain Cleaner

Our Annual Sales are
2,000 Machines

Our output to date
59,955 Machines

Catalog Free

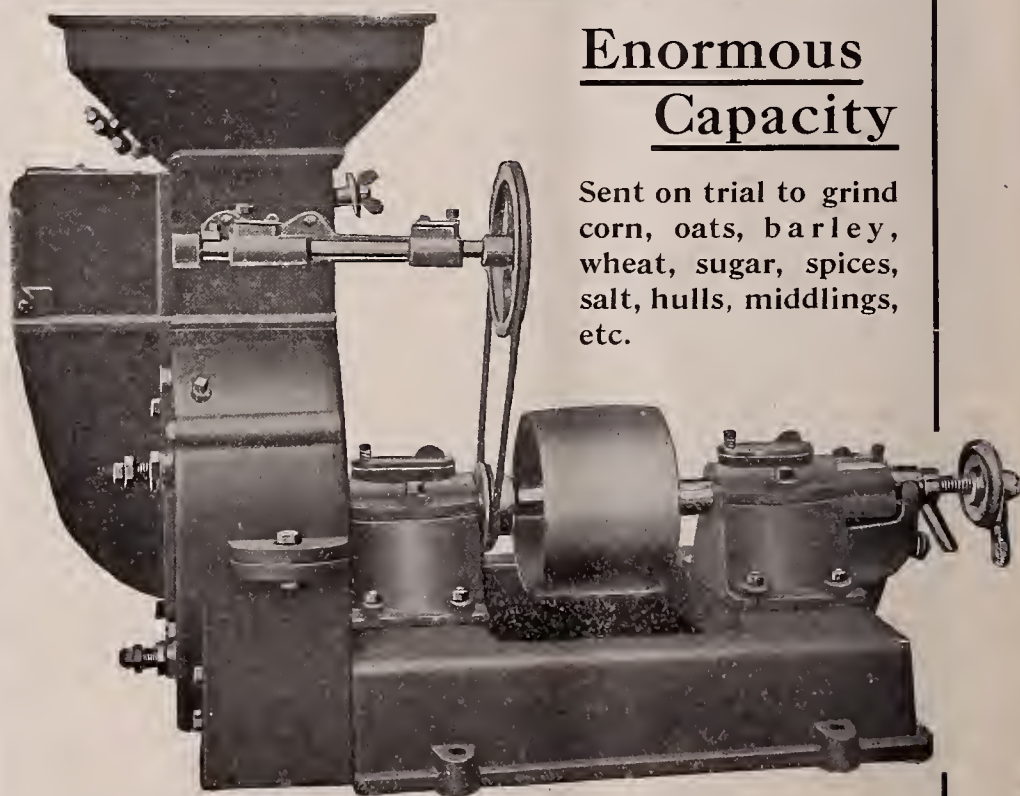
THE S. HOWES COMPANY
SILVER CREEK, N.Y.

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Enormous Capacity

Sent on trial to grind
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FOUR SIZES—16 inch, 18 inch, 20 inch, 24 inch

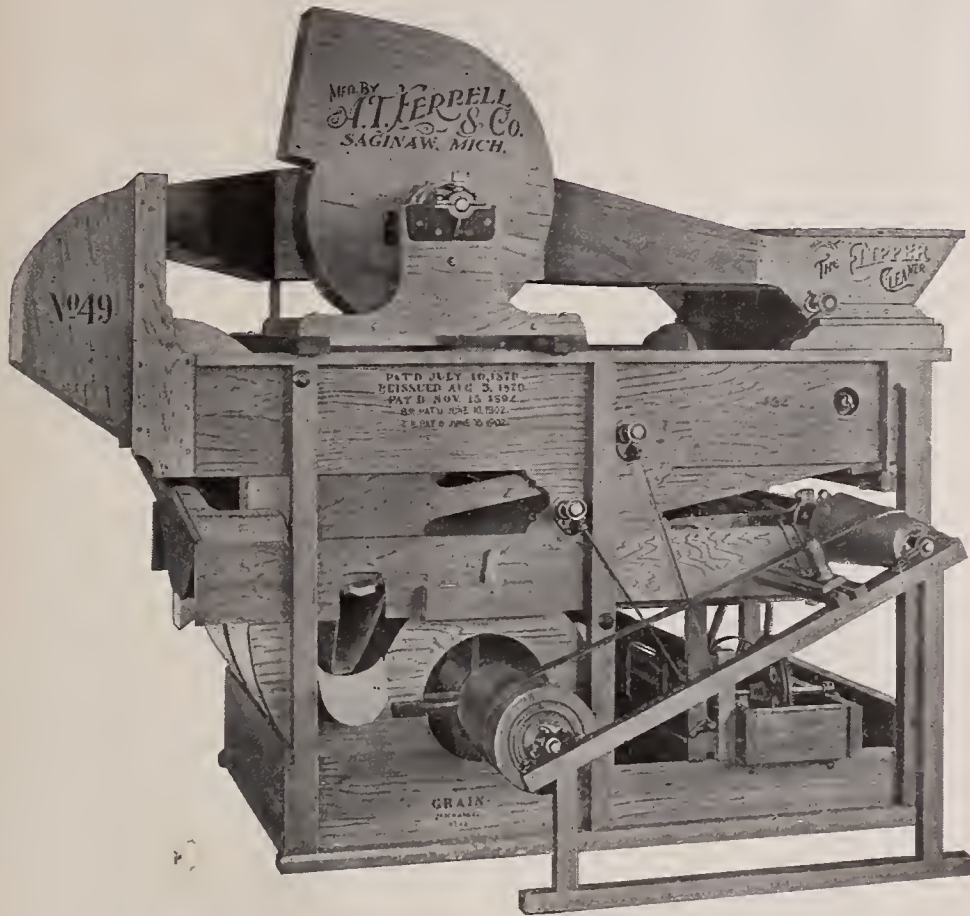
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WHAT OPERATORS OF OUR GRINDER HAVE
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Low Speed—Low Power
Shellers, Crushers, Elevator Equipment

ABSOLUTE SATISFACTION GUARANTEED

The National Company, PORT HURON, MICHIGAN

"Clipper" Grain and Seed Cleaners



The No. 49 Clipper is a first-class grain receiving cleaner for local elevators. It has large capacity, is solidly built, is dustless and will make the most difficult separations. It is simple, strong, convenient and will not easily get out of order. It requires less for repairs than any other grain cleaner on the market and is always ready for business. Ours is the only successful combination cleaner on the market. We give a 30-day guarantee with each machine.

If you are looking for the best cleaner, we would like to show you what we have. Our line of clover seed cleaners is strictly up-to-date. All sizes and capacity. We can furnish machines with Traveling Brushes, Air Controller and all modern improvements. Send for catalog and discounts.

A. T. FERRELL & CO., - SAGINAW, MICH.



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The Most Extensive Assortment in the United States.

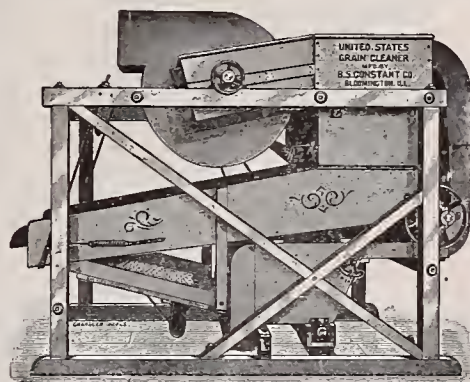
These goods are suitable for Conventions, Salesman Distribution and General Use.

Write for Assortment to Examine and return at our expense. Just give us an idea as to the price of article wanted as they range from 1c to \$12.00 each.

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Pocket Books, Bill Folds, Desk Clocks, Match Boxes, Wallets, Pencils, Cigar and Cigarette Lighters, Knives, Letter Openers, Memo Books, Key Rings, Pocket Combs, Etc.



THE U. S. Grain Cleaner

is the best in the Union and should be in the top of all elevators where Corn, Oats and Wheat are shipped.

Higher Grades—Higher Prices.
Long life machine.
Ring or Chain Oiling Bearings.
Balanced Eccentrix.
Five Separations and

All the Corn Saved.

The Constant Safety Ball Bearing Man-lift

the most satisfactory connecting link between Cleaner and Sheller.

Best made.
Easiest and safest.
Adjustable Brakes
which we guarantee.

State distance between floors and get our

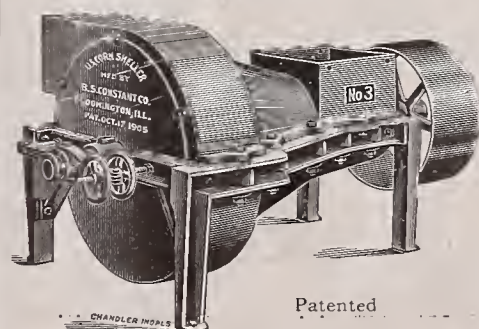
Net Price

U. S. Corn Sheller

Fan Discharge,
over or under, right or left hand.

Iron or Wood Frame.
No Lower Hoppering.
Cheapest Installed.
Quickest and Cheapest Repaired
of any Sheller on the market.

Send for a Catalog.

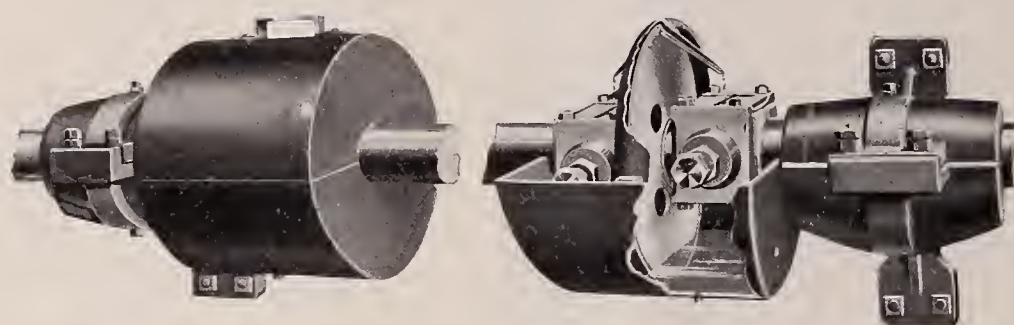


Patented

B. S. CONSTANT CO.
Bloomington Illinois

"MONITOR"

A Perfect Safeguard
Against Care, Wear, Oil Waste and Fire



First in the world—
the original disc oiler eccentric
for grain cleaners

For Seven Years
this great safeguard
against wear and
fire has proven a
success to over a
thousand users in all
parts of the world.

Over a thousand "Monitor" Grain Cleaning Machines have been equipped during the past seven years with "Monitor" Automatic Disc-oiling Eccentrics—the **first** mechanical device of **any kind** used anywhere in North America for oiling eccentrics on a grain cleaning machine. So phenomenal has been our success with "Monitor" Disc-oilers, so wonderful their superiority over **all** other known methods of oiling these vital working parts that others have felt the necessity for manufacturing something as near of a similar character as our patents will permit—our patents cover the **first disc-oilers in this country on a grain cleaner**, and we will rigidly enforce our patentee's rights in the United States, Canada and abroad wherever we find competitors have disregarded our patent rights.

The "Monitor" Automatic Disc-oiler is a simple device which mechanically lubricates the eccentrics in a positive, unvarying manner. Using eccentrics in the same manner as a regular grain cleaning machine **but one moving part is added** to obtain **automatic oiling**, this is a **solid, one-piece disc**, which is **not subject to wear**, and requires **no adjustment whatever**. Undoubtedly the "Monitor" will prove for all time to come to be the simplest and safest method of automatically oiling grain cleaning eccentrics.

The illustration above shows a "four-eccentric" drive as regularly arranged for a "compound shoe" machine. At the left is shown heavy metal, air-tight casing (closed as when machine is in operation), and in which are contained one pair of eccentrics. At your right the other pair of eccentrics are shown (hood removed, as for refilling reservoir or adjusting eccentrics). Observe, please, this **very simple** arrangement—the eccentrics operating in pairs, and attached to the shaft, directly between the eccentrics, the **one-piece disc**. With every revolution of the shaft this disc gathers oil from the supply in reservoir below and carries it up to the **stationary** spreaders which divide the stream and deliver it into the eccentrics. Here we have **abundant, continuous** lubrication mechanically supplied in an **unfailingly accurate** manner. No other attention than to remove plug, drain reservoir and refill with oil once in sixty days. No dust nor grit can enter—**no oil can leak out**. Oil trays condemned by fire insurance underwriters are dispensed with. The eccentrics are our improved, heavy-duty, two-piece construction. These are adjustable, iron bound, with bronze metal wearing surface.

HUNTLEY MFG. CO., Silver Creek, N. Y.

THE WORLD'S LARGEST MANUFACTURERS
OF HIGH CLASS GRAIN AND SEED
CLEANING AND GRADING MACHINERY

A monthly journal devoted to the elevator and grain interests.

Official paper of the Grain Dealers' National Association and of the Illinois Grain Dealers' Association.



Published on the fifteenth of each month by Mitchell Bros. Publishing Co., 431 So. Dearborn St., Chicago, Ill.

Subscription price, \$1.00 per year.

English and Foreign subscriptions, \$1.75 per year.

VOL. XXXI.

CHICAGO, ILLINOIS, APRIL 15, 1913.

No. 10.

New Grain Storage Tanks at Medicine Hat, Alberta

Modern Concrete Storage Unit Recently Erected for Large Milling Company—Unique Method of Subdividing Tanks—Arrangements for Rapid Handling of Grain

No greater evidence of the growth of the great Canadian Northwest could probably be produced than the fact of the construction of such a class of buildings as shown in our illustration. It is very true that wheat is the foster father of that country. It has caused great railways to be built, attracted a new civilization and erected buildings of almost colossal proportions and still the country remains, as a whole, almost undeveloped.

This large mill and elevator was built by the Canadian Stewart Company, Ltd., for the Ogilvie

Flour Mills Company, Ltd., one of the largest handlers of grain, as well as one of the big milling firms of the Dominion. The company has its headquarters at Montreal in the province of Quebec, but has elevators and mills at a number of large centers in Canada and this new plant is just being completed. The plant comprises principally concrete, fire-proof storage tanks of 500,000 bushels capacity, a 6,000-barrel mill and brick warehouse. The mill building is of brick and concrete, 52x182 feet, and the warehouse is of brick 70x168 feet in size.

The grain storage tanks, with which this article has wholly to deal, cover a ground space of 50x143 feet. The structure rests on a concrete mattress and comprises 24 tanks divided into two sections each having four rows of tanks with three in each row. A working house is located between the two sections, and there is also a track shed and wagon receiving shed. Each tank is 16 feet inside diameter and 89 feet in height with a capacity of 17,000 bushels.

An ingenious method was used in construction by



OGILVIE MILL JOB.
Medicine Hat, Alta.
Designed and Built by
CANADIAN STEWART CO. LTD.
Engineers and Contractors,
Medicine Hat, Alta.

subdividing several storage tanks to make them serve a double purpose. The upper part of the tanks was made to feed directly to two Monitor Warehouse Separators located on the cleaner floor over the track shed. These in turn discharge to a cleaner leg. This leg elevates the grain high enough to discharge into the lower half of the tank without wasting any space.

The working house is equipped with one receiving leg, one transfer leg, one screenings leg, with two 30-inch shipping conveyor belts under each section of tanks, to carry the grain from the tanks to the working house. Both the receiving and the transfer legs have a capacity of 10,000 bushels per hour. There is also one 100-ton, 50-foot Gurney Track Scale, furnished by the Gurney Scale Co. of Hamilton, Ont., two drum car pullers, one 600-bushel Gurney Hopper Scale, one No. 6 Monitor Screenings

Separator, passenger elevators, etc. A 30-inch belt conveyor is installed over each section of tanks. The one running towards the mill is extended and has a reloading tripper enabling the grain to be discharged into the mill bins located in the mill. A concrete bridge, 25 feet long, connects the elevator with the mill, and the belt conveyor runs in this bridge.

Grain is discharged directly into the receiving leg from cars without the use of a conveyor and for receiving grain from wagons a wagon dump scale is provided which discharges direct to the elevator leg. The entire machinery equipment of the elevator is driven by motors furnished by the General Electric Company and a fireproof power house contains a Corliss engine, boilers, feed pumps, etc., with all necessary accessories for furnishing power to run the mill.

or three individuals faced Pharaoh, for instance, in a rank, the first one was merely the nearest to the eye; the second one was *not* in his rear. The human form, for ages, retained its one conventional pictorial outline.

The picture of the granary is one of the conventional subjects on the tombs, being pertinent to great officers connected with the public stores. In it we may note the costume of the workers, and the staves and hoops of the measuring cask or bushel—the latter detail a remarkable departure from the usual rigor of bare outline. (In the thrashing song (anon) it will be seen that this measure was scoop-shaped.)

This granary was probably a low flat building, with a front wall whose entire edge or "top" arched, for ornament. The three vaults above were really *beyond*. The front ones are on one plane, and the wall rising above is merely a continuation of the far wall at the right, and no higher in reality. Five laborers are carrying sacks of Wheat up-stairs, to pour down into the vaults, and one man is measuring and filling the sacks to be so carried and emptied. The superintendent, or steward, of the personage buried in the tomb which this picture decorates, holds the symbol of his office, a goad, and signs the quantity to be tallied on the walls. These inscriptions are conventionally represented on the walls outside the windows. The window admits air to the Wheat. This granary, with its semicircle-topped wall, probably faced on some public way, or market-place. Its type is, by thousands of years,

The Romance of Grain

A History of Grain and the Grain Trade of the World from Remote Ages

By JOHN McGOVERN

Author of "The Fireside University," "Hospitality," "Paints and Pigments," "Trees," "An Empire of Information," Etc.

VII EGYPT

HERODOTUS.

Two aged Egyptian empires had passed into tradition when Abraham and Sarah appeared before Pharaoh. (Genesis 12: 15.) When Herodotus, the oldest of profane historians (400 B. C.) wrote, he could only copy the stories of decadent Egyptian priests—tales so remarkable that, like the accounts of Marco Polo regarding China, long afterward, they could not be believed.

Herodotus, Cicero, Julius Caesar, Hannibal, Napoleon, could not read a word of the hieroglyphics of Egypt.

Herodotus says an Egyptian named *Annos* invented small ovens, and we will do well to recall the word *anna* for *grain*, as given here previously.

Herodotus speaks as though in his time Rice had supplanted Wheat in Egypt. He says: "Wheat and Barley are common articles of food in other countries, but in Egypt they are thought to be mean and

phabetically. Often the picture of a bird would follow the spelling out of the sound for *bird*. There were twenty different groups inflecting the verb *to speak*, the root-picture of which was a serpent.



AN EGYPTIAN GRANARY—THE OLDEST PICTURE OF WHEAT IN THE WORLD

Phonetic Power or Sound.	Characters in common use.	Characters rarely used.	Phonetic Power or Sound.	Characters in common use.	Characters rarely used.
A			D		
Â			TS		
I			M		
U or OU			N		
F			R or L		
B			S		
P			SH		
K			KH		
Q			HH		
G			H		
T					

EGYPTIAN HIEROGLYPHICS AND THEIR MEANING

disgraceful. The diet here consists of a kind of corn which some call Zea (Rice)."

THE HIEROGLYPHICS.

The victory of the Champollions, of Paris, over the previously unread language of Egypt changed the history of the world, and threw the Greeks off their pedestal. It is found that the Egyptian artist might use an indefinite number of pictures to express meaning, but there were about 1,000 signs that covered most of the work. Again, certain signs became common in use, and these we reproduce here as best giving an idea of the system, considered al-

When Pharaoh placed at the bottom of a proclamation, "I have spoken!" it meant to Egypt, "Let all obey!" The hieroglyphics read from right to left, and the Hebrews copied the method. The *sound* intended by a picture of the serpent was *ts*—a hiss. Our own S is Satan. (In our thrashing-song (anon) the *hiss* sound is represented by probably what at first were two serpents entwined.) We now copy from Francois Lenormant:

PHYSICAL GEOGRAPHY.

We are now about to offer a Wheat-picture so old that when it was painted, Memphis was near the Mediterranean Sea; the Sahara Desert was an ocean; much of France was covered with water; the Caspian region was all watery, and the Persian Gulf reached to or near Babylon. The head of the Constellation called the Dragon (Draco) was the North Star. The Star Worshipers had all been killed, and the Sun Worshipers alone inhabited that part of the earth. The first-magnitude star Canopus had not become visible at the South in the Egyptian heavens.

PICTURE OF THE EGYPTIAN GRANARY.

The art of Egypt was highly conventional and under strict religious guidance. There were rules as to method, form and color. Blue (sapphire) could be used only in relation to a major deity. The hieroglyphic could be varied indefinitely, but the space to be occupied must be perfectly filled. Egypt bursts upon the dawn of history with a complete and grammatical array of pictures and signs for the expression of thought. The dog and cat had been domesticated and the leopard (cheetah) had been tamed.

Anything in the distance (perspective) could be represented by placing it on a higher level. If two

the oldest portrayal man has of Grain and the Grain Trade of the World.

OTHER EXAMPLES.

The tablet of Amten, an officer of King Senoferu (early Egypt), describes his rise. His mother "could not supply him with bread kneaded in her own house." He bore the staff of commandment (the goad), and as "scribe of the place of provisions" he received the Wheat. He issued the "wages" to the laborers, paying in Wheat.

Amelia Edwards describes a funeral picture 5,000 years old, where Ti and his wife supervise all the callings of Egyptian life as proprietors. The boats unload with produce from distant estates. The sower is sowing the seed; the reaper plies his sickle; the oxen tread the grain; the Wheat is stored in the granary. Ti has all kinds of workmen—carpenters, shipwrights, potters, smiths.

IMPORTANT DIFFERENCE.

It is important to note a great difference between the Egyptian and the Chaldean systems. In Egypt commerce between proprietors was not encouraged. The people of Ti's great household or estate all worked for each other, and for Pharaoh. Unless it were a year of famine, nobody had a short ration. Here trade with outside nations or peoples was unknown—impossible. If Wheat were given to outsiders, as in the case of Israel's sons, it must take the guise of a politeness—a gift. It was beneath the dignity of Pharaoh, or even of this Ti, to traffic.

The population of Egypt at this time was about 7,000,000.

THE SCRIBES.

Every department of Church and State (Church or State) in Egypt was administered by a scribe or

an assistant scribe, on a literary system similar to the Chinese that has just closed. The papyrus called "The Praises of Learning" often bears scribbles of students as to the prices of Wheat, and the transactions of a commercial character which scribes might conduct.

[TO BE CONTINUED.]

IN THE INDIANA FLOOD REGION

Right in the center of the recently flooded section of Indiana is the elevator of Jesse L. Peters at Collett, Ind. Fortunately very little damage was done to this comparatively new house and Mr. Peters is now operating it under normal conditions.

The elevator is of staunch, modern construction, covered with galvanized iron, and has a storage capacity of 10,000 bushels of small grain and about



ELEVATOR OF JESSE L. PETERS, COLLETT, IND.

2,000 bushels of ear corn. The office building is detached from the main building, as is also the engine room, which is not shown in the picture. In this there is installed a 20-horsepower gasoline engine which transmits power to a line shaft running to the elevator proper. There is also a warehouse 30 by 40 feet, not shown in illustration, which is used for storing hay and wool.

From the wagon dump in the elevator, chain drags convey the corn either to the elevator legs or to a corn sheller. The corn sheller has a capacity of 600 bushels per hour and there is also a cleaner with a capacity of 1,000 bushels per hour. A man-lift runs from the basement to the top floor and there is a turntable which can be manipulated from either the first or top floor. An Avery Automatic Scale, with a capacity of 750 bushels per hour, is installed and there are two 5-ton, ball-bearing wagon scales. The elevator was erected in the summer of 1910 and since it was first placed in operation has enjoyed a prosperous and rapidly increasing business.

It is planned to transform the St. Croix River into a great grain canal so that grain barges may travel between St. Paul and Duluth. St. Paul men have asked the Wisconsin Legislature to adopt a recommendation to Congress regarding the project.

A new variety of durum wheat has been imported by the U. S. Department of Agriculture. It comes from Bazenshook, in southeastern Russia, where it is known by the name of *teiskai*. It is said to be extremely hardy, having survived snowless winters when other wheats were either killed or severely damaged.

CO-OPERATIVE CORN SELLING IN RUSSIA

The movement in favor of the co-operative sale of corn in the southern districts of Russia has met with a great deal of enthusiasm. This question is being widely discussed by co-operative meetings, the zemstvos and agricultural societies, according to a recent consular report. The consensus of opinion is that the matter ought to be taken up by agricultural societies and savings and credit companies, the risk of the enterprise to be borne by all participants. This will be possible, it is supposed, if only 75 per cent of the market value of the corn is paid to the grower on delivery at the common store.

It is assumed that the agricultural societies, being in close relations with the producing classes, ought to be the first to take up this matter in constructing spacious sorting and grading houses for the corn. As soon as a certain quantity is delivered, the agricultural society can pawn this quantity with the Loan & Savings Society or some other credit institution. With the funds raised the agricultural society pays for additional deliveries of corn, and so on. It is further proposed that as soon as deliveries reach the quantity of 7,000 bushels

the agricultural society negotiate with brandy distilleries and traders for the sale of large lots of corn at the most advantageous prices. After deducting interest on the loan and the expenses involved by the operation, the remainder will be distributed among the participants.

STATE TERMINAL ELEVATOR BILL IS PASSED

The bill providing for state-owned terminal elevators recently passed by the North Dakota Legislature became a law during the past month by the signature of Governor Hanna. Terminal elevators will be erected in Wisconsin and Minnesota at an early date, the cost to be defrayed by a tax levy of one-eighth of a mill.

Originally the bill provided for a tax of 1 mill, but this was reduced because a change in the basis of assessment was anticipated. On the present basis the tax will bring in about \$40,000 annually. Authority for the tax levy is included in an amendment to the state constitution which was adopted last November. The operation of the elevators will be under the direction of the State Board of Control.

Loading Grain Under Difficulties

Ingenious Methods Adopted to Load Grain Boats in Ice-Bound Harbor at Fort William—
Vessels Take On Grain Cargoes While Surrounded by a Solid Field of Ice

During the past season strenuous times were experienced in attempting to handle the enormous influx of grain at the head of the lakes, on both the American and Canadian sides. After the close of navigation, grain began to pile up in the elevators at Fort William and Port Arthur, on the Canadian side, and at Duluth and Superior on the American shore. Soon the houses at these points were filled dangerously near to capacity and it was

efforts of a railroad locomotive to haul them free. As it was imperative that the boats be loaded at once, it was decided to place conveying equipment over the decks and thus carry the grain to the holds. The accompanying pictures illustrate how this novel feat was accomplished.

One view, Fig. 2, shows the vessels hemmed in by ice. It was impossible, of course, to bring the hatches of the first ship under the loading spouts of



A NOVEL PLAN FOR LOADING GRAIN BOATS AT FORT WILLIAM

found necessary to utilize for storage purposes the vessels wintering in the harbors.

Although sharp work was called for at times to keep the channels open in the American harbor, it is not recorded that they ever were frozen to the extent of preventing the movement of boats to and from the elevators in the process of taking on grain cargoes. At Fort William it was different. Tugs employed to keep the channels free of ice broke down during a severe cold spell and the ice formed so rapidly that it was impossible to move the steamers *Amasa Stone*, *Verona* and *Adriatic* to the elevators to load grain.

They were moored three abreast at the Canadian Pacific Elevator and 44 inches of ice defied even the

elevator. A belt conveyor was placed lengthwise on the deck, receiving grain direct from the storehouse and distributing it to the different compartments. The end of the belt was over a hatchway and when the compartment was filled the belt was shortened so that grain fell into the next compartment. Fig. 1 shows how this belt was arranged.

The middle ship offered a further difficulty because the marine legs would not reach from the elevator to the belt on deck. A second conveyor was set up between the elevator and the middle ship, emptying into a hopper over the deck conveyor. The same arrangement was used to load the third ship, and altogether approximately 1,000,000 bushels of grain was put into the ships in this ingenious manner. Figures 3, 4 and 5 show the details.

IMPORTANT GRAIN CARGOES LOADED ON PACIFIC COAST

Both of the accompanying illustrations portray vessels on the Pacific Coast taking on cargoes of grain. Both views, moreover, possess unusual

and Milling Company, whose headquarters are in San Francisco with mills in a number of cities along the coast. This company is rapidly arranging to abandon the use of sacks for its grain supplies and substitute the less expensive and more satisfactory system of bulk handling, which is in use in other

steamer *Portland*, a vessel of 300 tons capacity, formerly used as a carrier of ore, was recently purchased. This will be transformed into a floating grain elevator and will run between Los Angeles, San Francisco, Portland and Seattle. The *Portland* will steam twice each month between the northern ports and Los Angeles and will eventually proceed as far south as San Diego. The illustration shows the steamer being loaded for her maiden voyage in the company's coastwise supply trade. She will carry grain in sacks until it is possible to remodel her as a bulk carrier.

In the lower picture is shown the Japanese steamer *Fukoka Maru* taking on a cargo of 6,600 sacks of Canadian grain for Yokohama. The steamer is lying at the Canadian Pacific wharf in Vancouver, B. C. This is the first complete shipment of Canadian grain sent to the Orient and is said to be the forerunner of a new phase of grain trade development for both Vancouver and Canada in general. The *Fukoka Maru* left recently with the initial grain cargo and is to be followed by a number of other vessels carrying grain to Japanese ports. The present big demand for wheat in Japan is attributed to a number of reasons, chief of which is the reported failure of the rice crop.



STEAMER "PORTLAND" BEING LOADED FOR FIRST VOYAGE AS A GRAIN CARRIER

interest and significance for they show events which are the first of their kind in the Pacific Coast grain trade.

The steamer *Portland* in the upper picture is destined to be the first bulk carrier of grain on the Pacific Coast. It is the property of the Globe Grain

and Milling Company, whose headquarters are in San Francisco, and is completing a 300,000-bushel house at Portland and one of lesser capacity at Los Angeles.

To handle wheat in bulk from these elevators, the

MEMBERSHIPS IN DULUTH BOARD OF TRADE ARE TAXABLE

The right to place membership in a board of trade on the assessment rolls as personal property was upheld in the U. S. District Court at Duluth on March 26. The Court's findings and order for judgment were filed in personal property tax proceedings against Sidney A. McPhail, a member of the Duluth Board of Trade.

On May 1, 1911, for the first time in the history of Duluth, City Assessor J. A. Scott placed on the tax rolls the 200 memberships of the Duluth Board of Trade, assessing each at \$500 or \$100,000 for the whole. Heretofore, the taxing officials had left them off the rolls. The taxes on these assessments fell due and were paid under protest, except in one case—that of Mr. McPhail.

The Duluth Board of Trade as a whole decided to



Courtesy of the "Vancouver Province"

THE JAPANESE STEAMER "FUKOKA MARU" LOADING THE FIRST CARGO OF GRAIN FOR THE ORIENT, AT VANCOUVER, B. C.

have his case selected for the purposes of a friendly test suit. On April 1, 1912, the tax against his seat became delinquent and proceedings were started in the usual way to enforce collection. Francis W. Sullivan, attorney for the Duluth Board of Trade, filed an answer in which the right to assess the memberships was denied.

The Court upheld the contention of the local taxing officials that board of trade memberships are a form of personal property and as such are properly taxable. On the decision depends the liability for taxation of 200 memberships in the Duluth Board of Trade, and 1,000 seats in the Minneapolis Chamber of Commerce. It is probable that an appeal will be taken to the Supreme Court.

THE DESTRUCTIVE CORN ROOT-APHIS

One of the insect pests which are most injurious to the corn crop is the corn root-aphis. Particularly is this destructive insect prevalent in Illinois and a recent bulletin of the Illinois Agricultural Experiment Station is devoted to methods for its extermination. It is asserted that although the corn root-aphis or root-louse infests a great variety of plants, corn, sorghum and broomcorn, are the principal crops which it injures. It is quite at home, however, on many wild plants and on several kinds of weeds growing on cultivated land, especially on smartweed, ragweed, foxtail or pigeon-grass, and crab-grass. It could probably be found also on the roots of millet and Hungarian grass, since these are very closely akin to some of the weed grasses above mentioned.

Although it may live on these weeds throughout the summer, it thrives on them best in early spring when they are young and juicy. Later, as they get comparatively dry and hard, it multiplies much less abundantly on them than on a rapidly growing, succulent plant like corn, and it is to this plant especially that it owes the enormous and increasing numbers which have brought it up from economic insignificance to the rank of a first-class agricultural pest. Certainly the vast majority of all the corn root-lice in Illinois, at any time, have come from the corn fields.

It takes its start in spring from eggs laid mainly in old corn-fields the preceding fall, and the young, hatching from these eggs late in March or in April, are placed by ants on the roots of young field weeds. Here they grow up and multiply, beginning to give birth to a second generation in twelve to fifteen days, and this to a third in about as many days more. The time required to bring a generation to maturity shortens with the advancement of the season, becoming in July and August as little as six to eight days.

Careful experiments, beginning with the hibernating eggs in April and running through to the

difficult to bring them together again. To make it as hard as possible for these active underground insects to search the earth, the soil should be packed with a heavy roller after the last disking is done. It is known also that the corn field ant is very sensitive to certain penetrating odors and they may be paralyzed and finally killed by strong-smelling vapors. Oil of tansy is recommended as the best for the purpose, and this may be mixed with the fertilizer.

DEATH OF O. M. JOHNSON

The death of O. M. Johnson of Huxley, Iowa, who passed away very suddenly at his home, on



THE LATE O. M. JOHNSON

March 24, from an attack of acute indigestion, was a severe blow to his many friends in the grain trade. Mr. Johnson was a native of Norway and came to this country at an early age to start what ultimately

proved to be a most creditable business career. At the time of his death he was sixty-three years old and was the senior member of the firm of O. M. Johnson & Co., at Huxley.

His operations in the grain business were confined principally to Story County, Iowa, where he had been for the past twenty years. His business was first at Cambridge, then Slater and finally, nine years ago, he removed to Huxley. Besides the grain and lumber business at this place, Mr. Johnson had a branch lumber yard at Alleman, and was interested in the Farmers' Savings Bank of that town.

As is quite common with self-made men, he was very public spirited and highly esteemed, and his loss will be seriously felt in the community where he lived. He leaves a son, J. L. Johnson, who is manager of the grain and lumber business of Larson Brothers at McCallsburg, Iowa. The business of O. M. Johnson & Co. will be carried on without any change at present.

KANSAS REPORT SHOWS PROGRESS

The recently issued report of the Kansas State Board of Agriculture shows that the total value of farm products in that state for the last twenty years aggregates \$4,220,513,354, making an annual average for the period from 1903 to 1912 inclusive, of \$211,025,668. The gross value of farm products in 1912 was \$324,988,943. Twenty years before it was \$122,570,557. Then there was only about 50,000 acres of alfalfa, while now Kansas has more than a million acres growing this legume, and the state leads in its production.

Twenty years ago Kaffir corn was not much of a crop in Kansas, from the production viewpoint. Last year the Kansas Kaffir corn crop was worth nearly \$20,000,000. The live stock products marketed constitute the state's most valuable commodity, and in twenty years amounted to nearly a billion and a half dollars. Corn ranked next, its aggregate value being more than a billion dollars, and wheat in that time was worth \$824,201,463. The aggregate of corn in the past two decades was more than three billion bushels, of wheat 1,250,000,000 and of oats 544,000,000 bushels. The largest year's wheat crop in that time was 94,000,000 bushels and the largest corn yield for one year was 225,000,000 bushels.

Alfalfa and Its Requirements

An Outline of the Rules Which Must Be Followed in the Production of Alfalfa, with Particular Attention Relative to Securing a Stand in the Humid Regions of the United States

By P. G. HOLDEN*

Alfalfa is comparatively a new crop in the United States but is destined to come rapidly into general use. There are very few whose profits would not be greatly increased by growing a few acres of alfalfa each year. During the last few years the area devoted to alfalfa has greatly increased in the region west of the Missouri River and it is certain that there will be an equally rapid increase throughout the eastern part of the United States.

It is safe to say that nineteen out of every twenty who have tried to grow alfalfa in the humid regions have failed, but with our present knowledge of the requirement of the crop, there will be little, if any, more trouble in securing a stand of alfalfa than of clover. However, the methods followed in securing a catch of clover will almost certainly fail with alfalfa.

It is important first that the ground should be sweetened with barnyard manure (eight or ten loads to the acre will be sufficient), second that there is a firm, solid and well prepared seed bed, third that

*This article was written by Prof. Holden in response to several requests from readers of "Alfalfa in the Corn Belt" in the March issue of the "American Grain Trade," for more information as to the methods of producing alfalfa.

in this region no nurse crop should be used, fourth that weeds should be kept mowed off during the first season in case the alfalfa is sown in the spring (fall sowing, however, is giving better results), and fifth that the first cutting each spring be made as soon as the first blossoms begin to appear (generally not later than the first of June).

The best results are generally obtained by sowing in late summer between the 10th and 20th of August, using ground that has grown a crop of early oats, barley or wheat. As soon as possible the grain should be hauled off the ground, and either stacked or threshed and eight or ten loads of manure to the acre be spread on the ground at once. The ground should then be disked, lapping disk half, plowed, again disked, harrowed, and left until about the tenth or twelfth of August, when it should be again disked, harrowed, seeded and re-harrowed to cover the seed.

It is important that the small grain be removed as soon as possible after it is cut and the ground manured, disked, plowed and re-disked at once. If this work is properly done, the ground will accumulate sufficient moisture by August 12 to germinate the seed at once even in very dry seasons. This may



A CORN ROOT-APHIS (WINGED FEMALE) AND ANTENNA GREATLY ENLARGED

eggs of the last generation in fall, show eleven generations as a minimum and twenty-two as a maximum, or an average of about sixteen in a year. The number of young produced by each corn root-aphis varies greatly, running from twenty to ninety-eight, with an average of forty-four. It is this high rate of multiplication by a number of successive generations which makes the root-lice so destructive.

To get rid of these root-lice it is necessary for the farmer to plow the infected corn fields of the preceding year, to a depth sufficient to turn out the nests of the ants (about 6 or 7 inches) and then repeatedly disk as nearly as possible to the depth of the plowing, in such a way as to break up the nests and scatter their contents so that it will be

seem like a great deal of work but there is absolutely no use of trying to get a stand of alfalfa unless the work is done in time and thoroughly done, too.

The alfalfa should make a good growth in the fall and not less than two good cuttings of hay should be made the following seasons and three if conditions are favorable. Remember that it is necessary to make the first cutting early, generally not later than the first of June, even though the weather is such that the crop cannot be cured.

Some advantages of alfalfa are:

1. It produces a large yield per acre, more than double that of clover.
2. It is rich in protein, the leaves having almost as high a feeding value as bran.
3. It is probably the most enriching crop for the ground, that there is.
4. When a good stand is once secured it will generally last for eight or ten years in the humid regions and much longer in the West.
5. It can be fed as hay to all kinds of animals and has no superior as a hog pasture.

The principal disadvantages of alfalfa are:

1. Extra work is required to secure a stand.
2. In the corn belt the first cutting must be made in the midst of corn plowing when everyone is crowded for time.
3. The first cutting is hard to cure in the humid regions, as it is not good hay making weather at this time.
4. It cannot be pastured safely by cattle and sheep, and it is likely to cause the animals to bloat.

Do not begin on too large a scale. Obtain experience with four or five acres first, so located that it can be used for hog pasture, especially the first crop each year.

Seed obtained from the eastern part of Kansas and Nebraska seems to give better results in the humid regions than that from the irrigated districts. The attempt to grow alfalfa seed in the humid regions has not generally proved profitable. It seeds better in the semi-arid and in the irrigated regions. Where seed is the object the second cutting is allowed to mature.

As hay, alfalfa has no equal. It is rich in protein, the very thing in which our corn and most other crops are deficient. It, therefore, balances up the ration and will save the purchase of high priced foods. No piece of ground on the farm will bring greater profits than the five or ten acres put into alfalfa, provided the work is properly done and a good stand is secured.

Twelve to fifteen pounds of seed to the acre is sufficient. It is a good plan to sow about half the seed on the field the first time over, and then cross the field, sowing the other half. This will insure a more even distribution of the seed.

Spring sowing has been the general practice in the West and North. In this case it is common to use corn stalk ground that was manured the year before for corn. The stalks should be removed and the ground thoroughly disked and harrowed and the seed sown about the middle of April, without any nurse crop. (In the North and East barley is frequently used as a nurse crop with success, but conditions are such that this method is not desirable in this section.) It is very important that the weeds should be mowed down two or three times during the summer or they will choke out the alfalfa.

The disadvantages of spring sowing are:

1. The loss of one season's crop.
2. The extra labor required to keep down the weeds.
3. The danger of neglecting the weeds, resulting in the loss of a stand or at the best securing only a "patchy" stand.
4. It is the most crowded time of the year and either the alfalfa is not put in at all or the work is slighted.

The advantages of August sowing are:

1. We do not lose one year's use of the land and do not have to mow weeds.
2. It comes in a slack time when the work can be done at least expense to other crops.
3. The alfalfa will be more free from weeds and a better stand will be secured.

4. In case the alfalfa is winter-killed, or for any reason a stand is not secured, the ground can be put into corn the following spring and a year's crop will not have been lost and the growing of alfalfa in the fall will have more than paid for itself in the added fertility.

The points which should be emphasized are the manuring of the ground before plowing, removing the small grain and preparing just as soon as possible after the small grain has been harvested, thorough preparation of the ground and sowing not later than August 10 to 20, and beginning on a small scale. Four to six acres where it can be used for a hog pasture will make a good start. Remember that alfalfa will not endure wet feet. There should be no standing water within four and a half or five feet of the surface of the ground.

Alfalfa cut for hay should be handled in the same way as clover except that it will require more attention. When we remember that the leaves are nearly as valuable as bran, the importance of preserving them in the hay will be recognized. Alfalfa should always be cut when the very first blossoms appear. Never let it get into full bloom as in the case of clover for the leaves will fall off and the stems become woody and the next cutting will be practically ruined. It is best handled by putting up

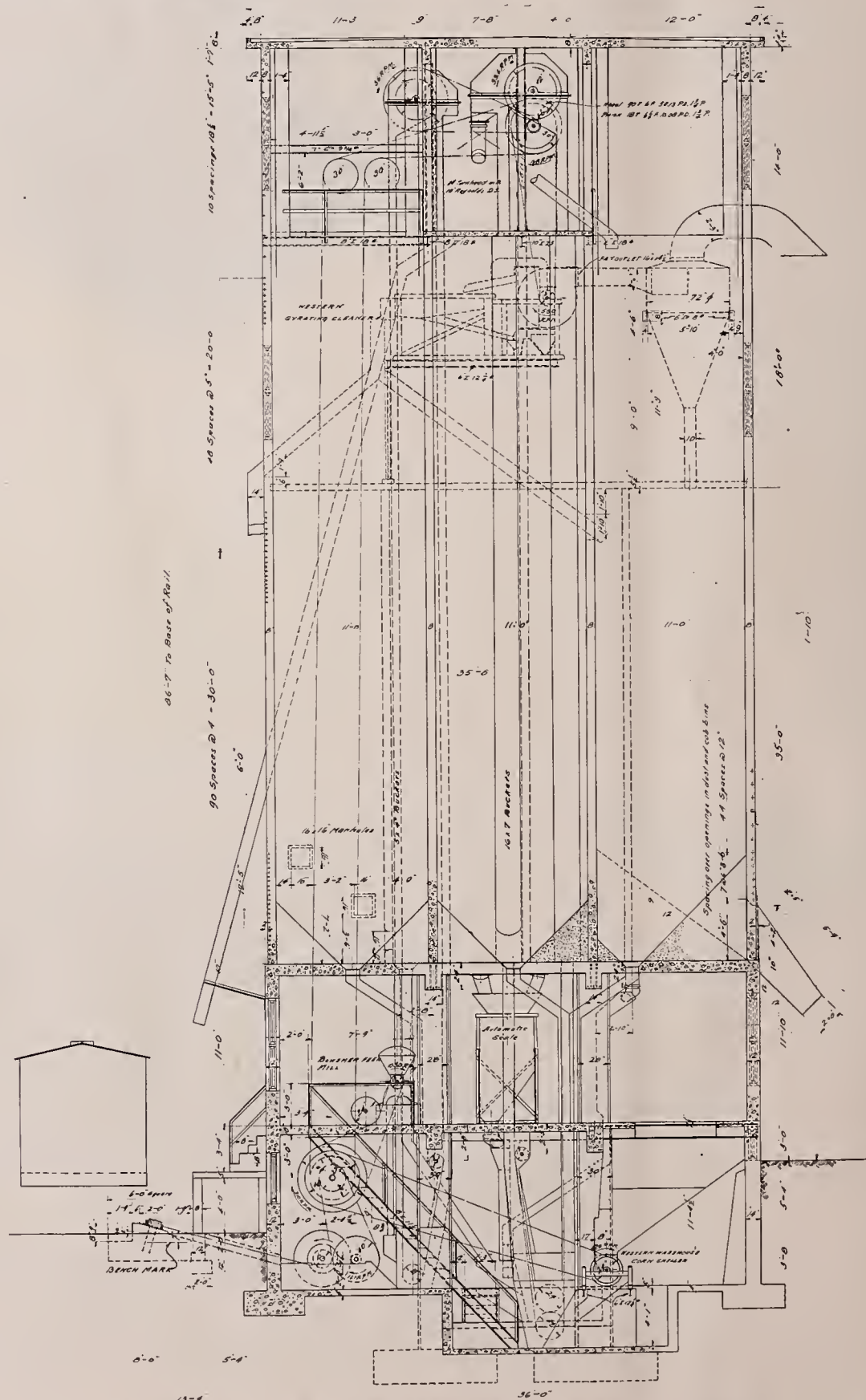
in hay cocks as soon after cutting as it can be raked well. It may be necessary to open the cocks a few hours before hauling.

Do not waste any time worrying about inoculating the ground with bacteria. If you will prepare the ground as described above, spreading it with a light dressing of manure before plowing, there will be present all the inoculating organisms necessary for the best growth of the alfalfa.

After the second year the alfalfa will be improved by disking the field in the spring, as it mulches the ground, kills out the grass and splits up the crowns of the alfalfa roots and in this way thickens it.

Alfalfa is adapted to almost every kind of soil except those that are cold and wet, where the water stands for several weeks during the year within four or five feet of the surface. Sometimes during very wet seasons in the humid region, the alfalfa is struck by rust, the leaves turn yellow and begin to fall off. In this case the alfalfa should be cut at once and either cured for hay or fed to the hogs. The next crop will then start immediately.

Every producer should have a small field of alfalfa, and if the work is done thoroughly and at the proper time, he will almost certainly succeed in securing a good stand,



LONGITUDINAL PLAN OF ELEVATOR OF THE CRABBS-REYNOLDS-TAYLOR COMPANY, WINGATE, IND.

Plan and Finished View of New Indiana Elevator

A 60,000-Bushel Country Elevator of Reinforced Concrete with Some Original Features—
Replaces Elevator Destroyed by Fire—Planned with a View to Future
Requirements—Rapid Handling of Grain from Wagons

About a year ago the old wooden elevator at Wingate, Ind., was destroyed by fire, and its owners, the Crabbs-Reynolds-Taylor Company of Crawfordsville, Ind., decided to immediately rebuild on the same site. After devoting considerable thought and attention to the matter, plans for a modern, reinforced concrete elevator were adopted and the contract for building the new plant was awarded to the Macdonald Engineering Company of Chicago. The latter company, working in conjunction with some special ideas developed by the Crabb-Reynolds-Taylor Company, has recently completed a building

two man-lifts, a car puller and an excellent dust collecting system. Provision has been made for storing corn, corn husks and dust in separate bins. The outlets from these bins are carried through the outside walls for delivery to wagons.

The power plant, consisting of a steam engine and boiler, is located in a separate brick building, one end of which may be seen at the rear in the accompanying illustration. The crank shaft on the engine projects through the wall into the basement of the elevator, where the drive begins, and the power for running the different machines is dis-



NEW REINFORCED CONCRETE ELEVATOR OF THE CRABBS-REYNOLDS-TAYLOR COMPANY AT WINGATE, IND.

Designed and Constructed by the Macdonald Engineering Company, Chicago, Ill.

which, with regard to construction and equipment, represents practically all that is to be desired in a country elevator of this size.

In form the elevator is rectangular and rises to a height of 87 feet, towering over the smaller houses in the little village of Wingate. The bins are likewise rectangular and have a total capacity of 60,000 bushels. To further a plan for rapid handling of grain from farmers' wagons, the building was designed with a deep basement, having the driveway projected through the first story, or ground floor. There are three wagon dumps, and the hoppers have large capacities, each loading to a separate elevator leg.

The first story under the bins is entirely open and provides excellent accommodation for various machines, including a Bowsher Feed Mill, a large size Western Corn Sheller, and an automatic scale. A Western Gyrating Cleaner is located in a special compartment at the top of the bins and connected by spouting, so as to discharge in a separate series of bins provided for cleaned corn. There are four elevator legs, three carrying 7x16-inch buckets and one with 4x5-inch buckets, besides which there are

tributed. The general transmission machinery was furnished by the Weller Manufacturing Company of Chicago.

The fact that the elevator was erected on precisely the same site as the original one proves that its location is considered to be ideal. Wingate is about fourteen miles east of Crawfordsville, the headquarters of the Crabbs-Reynolds-Taylor Company, and is in the middle of a great producing region, which year after year brings forth abundant crops and where crop failures are practically unknown. The new elevator is substantially fire-proof, the elevator being made of reinforced concrete and the machinery and equipment entirely of steel. In addition, all doors and windows conform to the standard pattern of the underwriters, and wired glass is used, so that the new house bids fair to resist the fate of its predecessor for all time to come.

Two farm experiment stations in western Kansas have been authorized by the state legislature. These stations will demonstrate the best methods of farming and also show that this section of Kansas is arable.

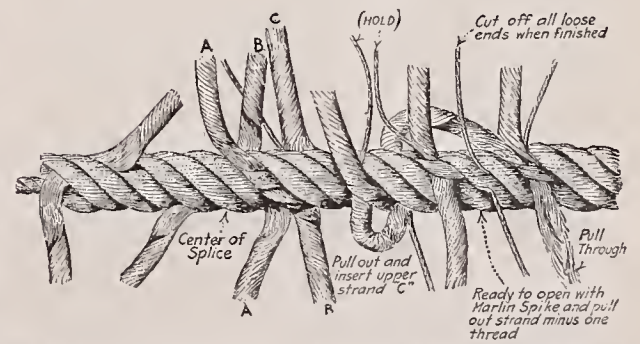
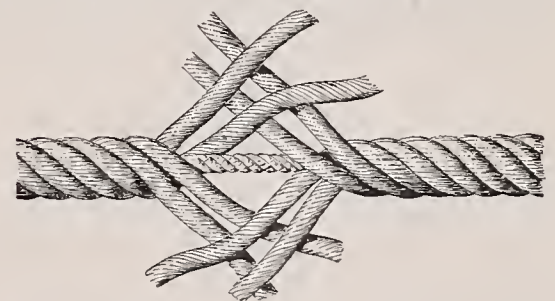
A SHORT SPLICE FOR ROPE DRIVE

In view of the almost universal application of the rope drive to grain elevators, it is essentially desirable that operators should know something about splicing ropes. Under ordinary conditions the rope used for driving the elevator machinery will last quite a long time because the dust in the elevator is not corrosive or cutting in its nature. However, for one reason or other, breaks frequently occur, and a consequent shut down may be avoided by understanding how to make a simple splice. An easy way to do this is described recently in *Power* for a plant where the rope drive gets rather bad service.

In the drive under consideration a four-strand, cored manila rope, 1 1/4 inches in diameter, is used. The pulleys are 93 feet center to center, and the drive runs 1600 feet per minute on an angle of 45 degrees. A sliding idler pulley with weights takes up the slack. In case of the rope breaking a temporary fastening of the loose strand will often allow the plant to continue running until Sunday, when a more permanent splice can be made.

A short splice is used, taking 2 1/2 feet on each end which is unstranded after cutting off the core within 6 inches of the solid rope. One strand is unwound, the core pulled out and a short common splice is made, shown in the upper figure, more to hold the rope together and get the proper twist to the strands than because it is needed. Replacing the core and loosened covering, a strand from each end coming together with the proper twist, is taken and each is split in halves. Taking one half of a strand it is wound into the other strand, leaving out a thread at each turn, 1 1/2 inches from the other, until both are used up, cutting off all the loose ends. The operation is repeated with each strand until both ends are woven into place. With a little care one can make the pull on each strand nearly equal and in two or three days the splice will be no bigger than the balance of the rope. The lower figure shows the complete method of making a short splice.

One reason a short splice is generally favored, is that it takes very little rope, and two or three



METHOD OF MAKING A SHORT SPLICE IN ROPE

splices can be made before it is necessary to put in a new piece, which means a lot when one takes into consideration the time required to make a double splice which is required for a long splice. It takes on the average about two and one-half hours to make a splice with one helper. A prepared rope dressing is used which is applied as hot as can be borne on the hands. It is rubbed in carefully and, although it is a nasty job, there is the satisfaction of knowing that the rope is thoroughly covered and no trouble is experienced from slipping.

A Federal investigation will soon be made of the alleged broomcorn combine in Oklahoma, which has been the subject of many complaints.

Leading a Great Industry to Success

How Executive Officers Are Made—A Glimpse at the Careers of Two Men Responsible for the Direction and Growth of a Big Manufacturing Company—The Factors Which Conduced to Progress and Development

There are certain men connected with every industry, both large and small, who are responsible in a great measure for the growth of that industry. These men are bound to make their presence felt before long and they are lifted to positions where

ploy of the John Deere Plow Company of Moline, as bookkeeper. Here he remained until the beginning of 1872, when, at the age of 36, he joined H. A. Barnard and J. Silas Leas in incorporating the Barnard & Leas Manufacturing Company, which



EXECUTIVE OFFICERS OF THE BARNARD & LEAS MANUFACTURING COMPANY, MOLINE, ILL.
CAPTAIN WILLIAM C. BENNETT
President,
THOMAS E. CASADY
Treasurer, Vice-President and General Manager.

their experience, knowledge, good judgment, enterprise and other prime essentials in business, will be able to exert still greater influence. It is always interesting to follow the careers of such men and observe the various steps in their progress, although sometimes the men themselves are lost sight of in contemplation of the successful industry itself. To remind us that works are but the measure of a man, we have only to look at the careers of the two men whose pictures are shown above. These two executive officers are at the head of one of the leading houses manufacturing elevator and mill supplies and machinery.

Captain William C. Bennett, president of the Barnard & Leas Manufacturing Company, Moline, Ill., was born in Fayette County, Pa., seventy-seven years ago. He comes of Quaker stock, his father's family for generations having resided in Pennsylvania, while his mother was born in that state, of English parents.

Captain Bennett moved to Illinois in 1856, first locating in La Salle and moving to Chicago five years later. On the breaking out of the Civil War he went to St. Louis and enlisted in the Mississippi flotilla, better known as the gunboat service. In a short time he became executive officer of the iron-clad war vessel "Choctaw" and participated in the siege of Vicksburg and the opening up of the Mississippi and Red Rivers. Just before the end of the war the death of his father demanded that he return home and take his place as the head of the family.

From 1865 to 1868 he was in the service of the Northern Line Packet Company, as clerk and captain, plying the Mississippi River between St. Louis and St. Paul. In 1868 he entered the em-

ploy of the John Deere Plow Company of Moline, as bookkeeper. Here he remained until the beginning of 1872, when, at the age of 36, he joined H. A. Barnard and J. Silas Leas in incorporating the Barnard & Leas Manufacturing Company, which



PRESENT APPEARANCE OF CANADIAN GOVERNMENT ELEVATOR AT PORT ARTHUR, ONT.
Woodman & Carey, Winnipeg, Man., Architects. Barnett-McQueen Company, Fort William, Ont., Contractors

followed by the death of Mr. Leas three years later, the directors elected Captain Bennett to the presidency of the company, which office he still fills.

After forty-one years of active and constant con-

nection he still takes an active interest in the details of the company's business and fills the duties of his high office every day in his usual able manner. His business experience began during the millstone age, long before the introduction of the middlings purifier, roller mills, flour dressers and Plansifters.

Thomas E. Casady, treasurer, vice-president and general manager of the Barnard & Leas Manufacturing Company, was born in Council Bluffs, Iowa, forty-four years ago, coming of a family identified for years with the legal history of Iowa and widely known as potent factors in the development of that state. Mr. Casady received his education in the public schools of Council Bluffs, Parsons College, Fairfield, Iowa, and the State University at Iowa City, fitting himself for the law profession, which he practiced from maturity until his connection with the Barnard & Leas Manufacturing Company. While in the general practice of law he filled the office for a term as United States district attorney.

He is the son-in-law of H. A. Barnard, founder of the Barnard & Leas Manufacturing Company, and soon after the latter's death Mr. Casady's intimate identification with that old established mill furnishing house became a necessity. He was elected a director and began his service with the company in 1907. A year later he was elected secretary and two years later, in 1910, the directors elected him to the dual office of secretary and treasurer, which he still fills, but at the last election of officers, the office of general manager was added.

He brought a trained, logical mind and a large measure of executive ability to direct the details of the company's constantly increasing business. On his shoulders rested the burden of establishing quickly, after the recent fire, adequate facilities for filling orders for machinery as well as rebuilding a new plant, work that has occupied all his wakeful hours for the past year. Those who know Mr. Casady best, speak of his courtesy, high personal character and integrity. He enjoys the utmost confidence of his friends and associates both on the score of ability and responsibility.

WORK STARTED ON GOVERNMENT ELEVATOR AT PORT ARTHUR

A splendid start has been made on the new grain elevator which is being built for the Canadian Board of Grain Commissioners at Port Arthur. Although the progress of the work has been delayed during the past few weeks by storms and snow, it

is now being pushed forward rapidly. In the illustration at the left is shown the foundation piling and the reinforced concrete mattress. On the right are the forms for the concrete up to the level of

the bin bottoms, while at the rear may be seen the two large mixers. Between these mixers are laid the railroad tracks passing through the elevator.

In securing a site for this elevator the Commissioners found several locations were available. Two of them were on the mainland and the others on islands. The final selection was guided by the character of the foundation, the amount of dredging that would be necessary, the accessibility from lakes and railways, and the area and possibility of future additions to the elevator. Comparison of the engineers' reports showed that a mainland site was preferable to an island site for several reasons and a tract on Thunder Bay was purchased. The area of this tract is 600 feet wide by 3,336 feet long. It

is large enough for future extensions to the elevator, sufficient to bring up the capacity to more than 33,000,000 bushels. The foundation proved to be satisfactory, and the filling in has converted it almost all into dry land.

It is expected that the government dredge will be placed at work completing the channel to the elevator as soon as the ice goes out of the harbor. When finished, the elevator will have a total capacity of 3,250,000 bushels of which 750,000 bushels are provided for in the working house. The plans for the elevator which were made by Woodman & Carey of Winnipeg, Man., provide for eventually more than doubling this capacity.

Co-operation of Grain Dealers and Producers

A Review of Present and Past Conditions in the Grain Trade, Showing the Vital Necessity for Close Relationship and Better Understanding

By THOMAS P. RIDDLE*

The interests of the farmer who produces the grain and the interests of the dealer who markets the grain are mutual and reciprocal, with respect to many important considerations. Grain producers and grain dealers should co-operate.

There are three links in the chain of business. The merchant is the middle link. He is the link between supply and demand. The grain dealer is the link between grain producer and grain consumer. No chain is stronger than the weakest link in it. The supply may be strong but if the demand is weak, what does it profit? The demand for grain may be strong and high prices may prevail, but what does it profit the farmer who doesn't have any grain to sell?

Business traces its beginning to the Cain and Abel incident of Bible record. Cain and Abel were two farmers. Up to that time there was no city. All were farmers. Everybody lived the simple life. God walked and talked with men in those days.

Abel was our first scientific farmer. It was Abel who first foresaw the danger of soil fertility depletion and the value of stock raising as a preventative. He had business foresight. He raised that which was in demand. It pays to raise that which the trade demands. Abel raised sheep because there was a growing demand for meat and wool. Fruit and fig leaves had been the food and raiment in vogue but the people were beginning to realize that meat was more sustaining than fruit and that wool was more durable than fig leaves.

Abel was progressive, successful and public-spirited. He was of the kind that mix a little brain with brawn; the kind that believe in better schools, better churches, better roads; the kind that support county fairs, corn shows, corn growing contests, etc.

Cain was a mean, jealous, shiftless sort of fellow. He was one of the kind that believe that the old way is good enough; the kind that let their machinery stand out in the weather; the kind that believe that everybody is dishonest; the kind that vote against a dollar in taxes even when it means a hundred dollars in improvement; the kind that won't let his boy off for a week of educational travel even when other people meet the expense.

Cain was jealous of Abel as is usually the case of a man of Cain's kind toward a man like Abel. One day Cain let his feelings get the better of him and he killed Abel. This caused Cain to quit the farm. For a period Cain roved about with his family and finally established a settlement which grew into a city. The people of the city wove cloth, made pottery, trinkets, etc. The tillers of the soil had a surplus of cattle, grain and fruit. A trade sprang up between the city and the country. Such was the beginning of business.

THE EVOLUTION OF BUSINESS.

Business, in the beginning, was conducted main-

ly by peddlers. It was an individual affair with no permanency or regularity. Gradually the booth and pack evolved into the little store, and the methods of the small prevailed. The air was full of hate and suspicion. Cut throat rivalry was rampant. Competition ate out the vitals. Progress could not be made along the straight and narrow path of honest service, so the way of short weight, short count and inferiority of quality was pursued.

We don't have to look back very far to find examples:

1. John Quincy Adams tells of a deacon who, embarking in the store business in 1775, always added in the 1775 as \$17.75 in rendering his accounts.

2. The records of a county court record the case of a boy of twelve who stole eggs from the back door of a general store and, carrying them around to the front, sold them to the owner. The Court in addressing the jury pointed out the fact that had not the boy taken in a partner and attempted a wholesale business, he might have kept it up indefinitely. Such were the leaks in those days.

3. When one bought a dressed turkey, if he did not discover the stone inside the turkey before paid for, there was no redress. The laugh was on the buyer.

4. Dealers in clothing guaranteed neither fit nor quality and a thing once wrapped up and in the buyer's hands was beyond exchange.

5. Merchants were ever on the outlook for "easy marks," and never hesitated to take a double price when they could get it. Yet, rather than see a customer get away, an article would be sold at cost.

This was the age that declared competition to be the life of trade. But the little store of small methods, like the booth and pack before it, had to go. Men commenced to realize that it was a poor policy to sell one thing and to wrap up another, and that to make a sale and to make an enemy by it did not pay. Honesty became to be recognized as an asset. Duplicity was tabooed. Business moved up another notch.

Finally modern business was ushered in—the period of big business—the period whose banner is "co-operation" and whose slogan is "the square deal." In this period we have realized our great department stores, our mail order houses, our centralized markets, our parcel post, our uniform rates of transportation. Within this period bankrupt streaks of rust and brush grown right-of-ways have become trans-continental railroads, and Marconi wireless has brought the uttermost parts of the earth into daily communication.

RETROSPECTION IN THE GRAIN BUSINESS.

We don't have to look back very far in the grain business to see shady spots. In fact, there are some local sections still pursuing the booth and pack methods of by-gone days. For instance:

1. *Over-billing.* I have never heard of a grain dealer's adding in the year like the deacon that John

Quincy Adams tells about, but I have heard of grain dealers who over-invoiced shipments that much. And I want to say this—that I believe that a shipper who misrepresents the weight of a shipment in billing it out will, if he gets a chance, misrepresent the weight in taking it from the farmer.

2. *Leaks.* Some of the loose methods of the grain business of the past put to shame the incident of the boy stealing eggs from the back door of the old time general store. Farmers have seen themselves being cheated and didn't dare to say anything; and the grain dealers have watched farmers bring in water in the place of grain, and dirt in the place of grain, and they didn't dare to say anything.

3. *Plug-loading.* Selling a turkey with a stone inside of it is no worse than selling "plug-loaded" grain. By "plug-loaded" I mean a wagon load or a car load of grain with the good on top and the bad under. Farmers have done that and grain dealers have done it. And what do you think of a farmer who, on his way in to an elevator, would pick up a piece of scrap iron and cover it up with his grain in order to have it weighed as grain, and then have it get into the corn sheller and damage it to the extent of three hundred dollars? That happened.

4. *No Guarantee.* Buying or selling clothing without a guarantee as to fit and quality is about the same as buying or selling grain without any guarantee of the accuracy of the scales over which it was weighed.

5. *Trickery.* The "easy mark" trick has been turned in the grain business. Even now there are a few farmers who hunt for an "easy mark" elevator operator when they have grain to sell. There are not very many George Washington farmers. A George Washington farmer is a farmer who can't tell a lie. Most farmers can lie when they try—especially when they have grain to sell. Of course some don't. But I know from experience (I mean experience in buying from farmers), that many farmers, perfectly truthful and honorable in all other respects, fail to resist the temptation to stretch the truth a little about the quality of their grain and what the other fellow offered for it when they come to sell grain. Now you may feel that I am dealing roughly with the farmer, but wait until you hear what I have to say about the grain dealer.

Of all the mean, contemptible and unbusinesslike practices of the grain trade, the worst is the practice of paying one man one price and another man another price for grain of the same grade and value. That used to be very common and there are a few elevator operators today who will pay the poor man one price and the rich man another price; the little man one price and the big man another price; the "easy mark" one price and the "hard shell" another. There are a few elevator operators today who, rather than see a load of grain go to another elevator, would handle it for nothing and then scheme to get even by taking a double margin from some "easy mark."

However, the grain business at large has moved forward and today it is recognized as one of the world's most important economical factors. It constitutes the world's clearing house for grain supply and grain demand. The grain business in its present status embraces a world-wide plan of co-operation which provides a normal supply for the demand and a normal demand for the supply. This tends to promote uniform and normal values throughout the world and to insure against the disastrous over-supplies and under-supplies of the past.

IMPORTANCE OF SYSTEMATIC DISTRIBUTION.

The importance of systematic distribution is emphasized by the experience of the fruit growers of the Pacific Coast. Until a few years ago each fruit grower shipped his own product. This is how he did it. He secured the names of some of the produce dealers in the various markets and then kept his eye upon the quotations of those markets. When the fruit grower discovered a price which looked good to him, he sold or consigned. A thousand other growers followed with similar action. What was the result? Over-stocked markets and sacrifice prices. But you ask, suppose the shipper contracted

*Abstract of an address delivered before the Ohio State Corn Show held at Lima, Ohio, January, 1913.

the sale of his shipment to some reliable dealer at a fixed price, wouldn't he get that price? No. Not in one case out of a hundred. Let a shipment of fruit, grain or anything else arrive on a flooded market with prices shot to pieces and contract or no contract, the shipper would not get the price. Sue? Yes, a shipper could sue; but every man of experience knows that even the winner is a loser in court litigation. The lawyers are the only sure winners. Today the fruit growers entrust the marketing of their product to a marketing association. If Chicago needs fifty car loads of oranges in December, Chicago gets fifty cars, no more and no less, and so with other cities. As a consequence of this systematic distribution there is a uniform supply and a uniform demand with uniform prices.

HOW LOCAL PRICES ARE DETERMINED.

How are the grain prices of your local community determined? This is how they should be determined. The local miller or elevator operator should find out what is required in the way of a working margin to provide a reasonable earning upon his invested capital and expended labor. After determining this, whether it be two cents, three cents, four cents or five cents per bushel, he should take the buying basis quotations of one of the representative official markets like Chicago, Toledo or Buffalo as his daily guide, and pay his farmers those public market values less his proper working margin and the marketing expenses, such as freight, weighing charges, inspection charges, selling commission, etc.

There are certain other things which grain producers should know concerning the grain business. Every farmer should understand and follow the daily official market quotations of the various markets, and every farmer should understand how grain shipments are graded in those markets.

Market quotations have been the cause of much misunderstanding between grain producers and grain dealers. It is said that there are tricks in all trades. Market quotations constitute one of the tricks of the grain trade. Permit me to cite an instance. Toledo, Ohio's leading grain and seed market, publishes grain quotations under the caption—"Toledo Cash Market." To the lay mind that term "cash" conveys the impression of a tangible price—a price which anyone can secure who has a car load of grain to sell. This is not so. The "Toledo Cash Market" is in fact the Toledo merchants' selling price and not the buying price. The members of the Toledo Produce Exchange who buy grain from the country millers and elevator operators have an entirely different basis for buying. This is known as the "Toledo Call Market" or the "Toledo Bid Prices." These quotations were never given much publicity. For a long time they did not appear in the daily papers at all. Later they appeared in small type presumably so as to be easily over-looked. Finally, after an earnest appeal upon the part of the country millers and elevator operators of Northwestern Ohio, with the assistance of some of the wide-awake and influential farmers, this "Toledo Call Market," or "Toledo Bid Prices" were given fair publicity. These are the prices at which the man in the country can sell delivered f. o. b. Toledo or like rate basis. These prices range from 1 to 5 cents per bushel below the "Toledo Cash Prices."

Official market grades, like official market quotations, are not always what they seem. In fact, they are decidedly misleading. Again I refer to Toledo and I do so merely to cite Toledo as an example of grain markets in general.

When the grain producer or the grain dealer refers to Toledo grain and seed quotations he notes prices quoted upon certain grades. For instance, he notes, Standard White Oats, 33 cents; Prime Alsike Seed, \$12.75. Believing that he has about as good as there is, he naturally assumes that he can get 33 cents for his oats and \$12.75 for his seed, less the expense of getting them to Toledo.

I have taken the official record of receipts and I have found periods of a month or longer when less than 20 per cent of all the oats shipments met the grade of Standard and less than 5 per cent of the seed shipments met the grade of Prime. Quotations

are based upon the top grades. Grain producers don't have any way of knowing that their country shippers do not get the prices which they see quoted. Recently the Tri-State Grain Producers' and Dealers' Association addressed an earnest appeal to the Toledo Produce Exchange to publish in the newspapers, along with the daily quotations, a statement showing just how many car loads of each grade of grain and how many bags of each grade of seed were received during the day. This would prove helpful.

To meet the requirements of the standard grades upon which the official markets base their quotations, grain and seed have to be clean. Many country millers and elevator operators buy grain from the farmers "in the rough"—that is, without requiring that it be cleaned in advance of delivery. Tests have established the fact that the normal run of grain cleans out as follows: Oats, $\frac{3}{4}$ to $1\frac{1}{4}$ lbs. per bushel; corn, 1 to $1\frac{1}{2}$ lbs. per bushel; wheat, 1 to 3 lbs. per bushel.

The moisture content is another determining factor—especially in the case of corn. Recently the U. S. Department of Agriculture published and circulated broadcast the startling statement that there is an actual difference of 7.38 cents per bushel in feeding value between corn of 12 per cent moisture content and corn of 25 per cent moisture content, based upon a market value of 50 cents per bushel. As a result of this information, consumers of corn are beginning to discriminate between dry corn and wet corn. This is forcing the various receiving and distributing markets to discriminate. In turn, the country millers and elevator operators will have to discriminate in dealing with the farmers. Producers, dealers and consumers, interested in corn, should get their heads together for an intelligent understanding on this moisture content question. To do so will mean mutual protection. This is another point emphasizing the importance of co-operation.

THE GRAIN DEALER.

"The profit of the earth is for all." That's Scripture and I interpret it as meaning that the grain dealer is entitled to a reasonable profit upon his invested capital and expended labor. The one who proposes the elimination of the middleman is neither just nor wise. Every student of economics realizes that the middleman is a necessity. It is "penny wise and pound foolish" to advocate the saving of the middleman's profit by a producer's selling the consumer direct or by a consumer's buying from the producer direct. The middleman's service makes his profit twice over. For example—the middle man increases the price to the producer and lowers the price to the consumer.

A PROPER WORKING MARGIN.

What constitutes a proper working margin? A proper working margin is determined by certain local considerations which may be classed as follows: (1) the investment involved; (2) the amount of business handled; (3) trade practices. Every grain producer and consumer should be interested in these considerations because they affect the entire chain—producer, dealer and consumer.

Let us consider the investment involved. To properly take care of the interests of the producer, a property investment consisting of a building equipped with scales, dumps, elevators, cleaning apparatus, storage bins, etc., is required, involving an expenditure ranging from \$5,000 to \$25,000, in addition to working capital. An elevator operator must keep open in season and out of season. He must handle the good lot and the bad lot, the large lot and the small lot. This involves a fixed and continuous operating expense.

The amount of business handled has an important bearing in determining what constitutes a proper working margin. The property investment and operating expenses are fixed and 300,000 bushels of grain can be handled with about the same amount of property investment and operating expense as is required for the handling of 100,000 bushels. For example—suppose the interest on the property and capital investment and the annual operating expense of a certain elevator handling 100,000 bushels

of grain each year amounted to \$3,000 per year. That would require a working margin of 3 cents per bushel to meet expenses. Now it can be readily seen that if that plant handled 300,000 bushels instead of 100,000 bushels, the business could be handled upon a closer working margin; for a margin of 3 cents per bushel would figure \$9,000 on 300,000 bushels, whereas it would not require much more than \$3,000 expenses to handle the business.

The grain trade practices of a community also have an important bearing upon the working margin required and I invite special attention to the following points—(a) bag loaning, (b) money loaning, (c) storing, (d) country canvassing, (e) grades.

Bag Loaning. The grain dump is the modern method. It is a time, labor and expense saver for both the farmer and elevator operator. All up-to-date elevator operators equip their plants with dumps. But there are some farmers who always think the old way is good enough. These want to borrow bags and some of the weak-kneed elevator operators still loan bags. Bags are expensive and the very farmers who insist upon borrowing bags are, as a rule, the ones who don't return the things they borrow. So the loaning of bags means an added operating expense and an unnecessary expense and the up-to-date farmer has to help share it. It is unfair.

Money Loaning. We don't get something for nothing in this day and generation. In some communities the millers and elevator operators loan money. That is a bad practice. That is a bank's business and when the miller or elevator operator butts in on the banker's business he is apt to get turned down some time when he goes to the banker for money. Besides, it is not equitable. The miller or elevator operator who loans money without interest just for the sake of drawing business gets it back in some other way. It tends to force bigger working margins and it is unfair to the man who does not borrow.

Storing Grain. The practice of storing grain necessitates larger elevators. This means bigger investments and increased operating expense. Besides, it involves increased risks of loss by fire, shrinkage, deterioration and otherwise, in addition to extra labor and property wear and tear. It requires increased working margins to store grain for the account of the prospective seller. The farmer who does not store grain has to share the expense. It is unfair to him. Storing should be eliminated.

Country Canvassing. To present the extravagance and foolishness of country canvassing, permit me to cite an actual case. In a certain northwestern Ohio town maintaining four elevators, one of these elevator operators about five years ago employed his nephew. This nephew was an active, long-legged cuss who rode a bicycle. During dull periods he rode out into the country for the purpose of inducing farmers to haul in their grain to his uncle's elevator. This excited one of the other elevator operators of that town to protect his trade by getting out into the country after it. He was too heavy and short-legged to propel a bicycle, so he bought a motorcycle. Another of these four elevator operators got busy with a horse and buggy. And the fourth one did it up in style by using an automobile. The automobile proved too swift and classy for the bicycle, motorcycle and horse and buggy, and the rivalry reached the climax when all four were scouring the country in automobiles. It can readily be appreciated that the expense involved was enormous. Now, there was just a certain quantity of grain in that community, and the farmers were the best judges as to when to deliver it, and all that country canvassing was an unnecessary expense which had the effect of forcing undue margins.

Grades. Grain bought in the rough—that is with the dirt in it—requires more margin than grain bought upon a cleaned basis; for in preparing dirty grain for market the dust and screenings run from 1 to 5 pounds per bushel. The moisture content is also a factor, for the feeding value of grain of heavy moisture content is less than grain of light moisture content and the handling risks are greater. All grain should be bought by country millers and ele-

vator operators from farmers upon its grade merits for the following reasons:

1. Grain should be bought upon its grade merits because it is sold upon its grade merits.
2. Indiscriminate buying places a premium upon inferiority and a discount upon superiority.
3. It is unfair to the farmer who delivers good grain to pay him no more than that which is paid to the farmer who delivers poor grain.

In closing, I sound a warning against prejudice. Prejudice lurks in the dark. It barks at the heels of progress. It undermines the foundations of human achievement. It sucks the blood of veins that pulsate with the energies of success. Prejudice is a common and loathsome disease. When it gets into the system of an individual, or of a class, it scars, hardens and blinds. As a preventative, let us remember that, "we arouse in others the attitude we hold toward them," and that, "it is better to be deceived than to misjudge." Grain producers and grain dealers should put prejudice under foot. They should meet it in the light. Their interests are mutual and reciprocal. They are links of the same chain. They should co-operate.

A "MIDGET" MILL IN NEBRASKA

The keenness of competition between elevators has induced quite a number to look into the question of using some of their wheat to make flour.



ELEVATOR AND MILL OF PETERSON & PETERSON, OSCEOLA, NEB.

Among the elevators that have recently installed flour milling outfits, and one of the most successful, is that of Peterson & Peterson at Osceola, Neb., a picture of whose elevator and mill house we give. This firm is situated in a splendid wheat belt, and after investigation and considering everything, they decided to install a "Midget" Marvel mill and equipment.

That the combination of flour mill and elevator is a good one may be judged from the fact that Peterson & Peterson write: "We are more than pleased in every way with the results. We are making 42 pounds of straight grade flour per bushel of wheat, and are running every day except Sunday. Our customers are well pleased with the flour, which is competing with all the large mills, and is giving the best of satisfaction."

This certainly seems to furnish all the proof that is necessary to show that flour milling goes hand-in-hand with the business of a grain elevator. Already having the wheat and storage, the power and the labor, the only capital that is necessary is practically that of putting in the machinery.

All records for export shipments of grain, from Portland, Maine, were broken during the month of March, when more than 3,000,000 bushels left for foreign ports.

DETERMINING THE SIZE OF SCREW CONVEYORS

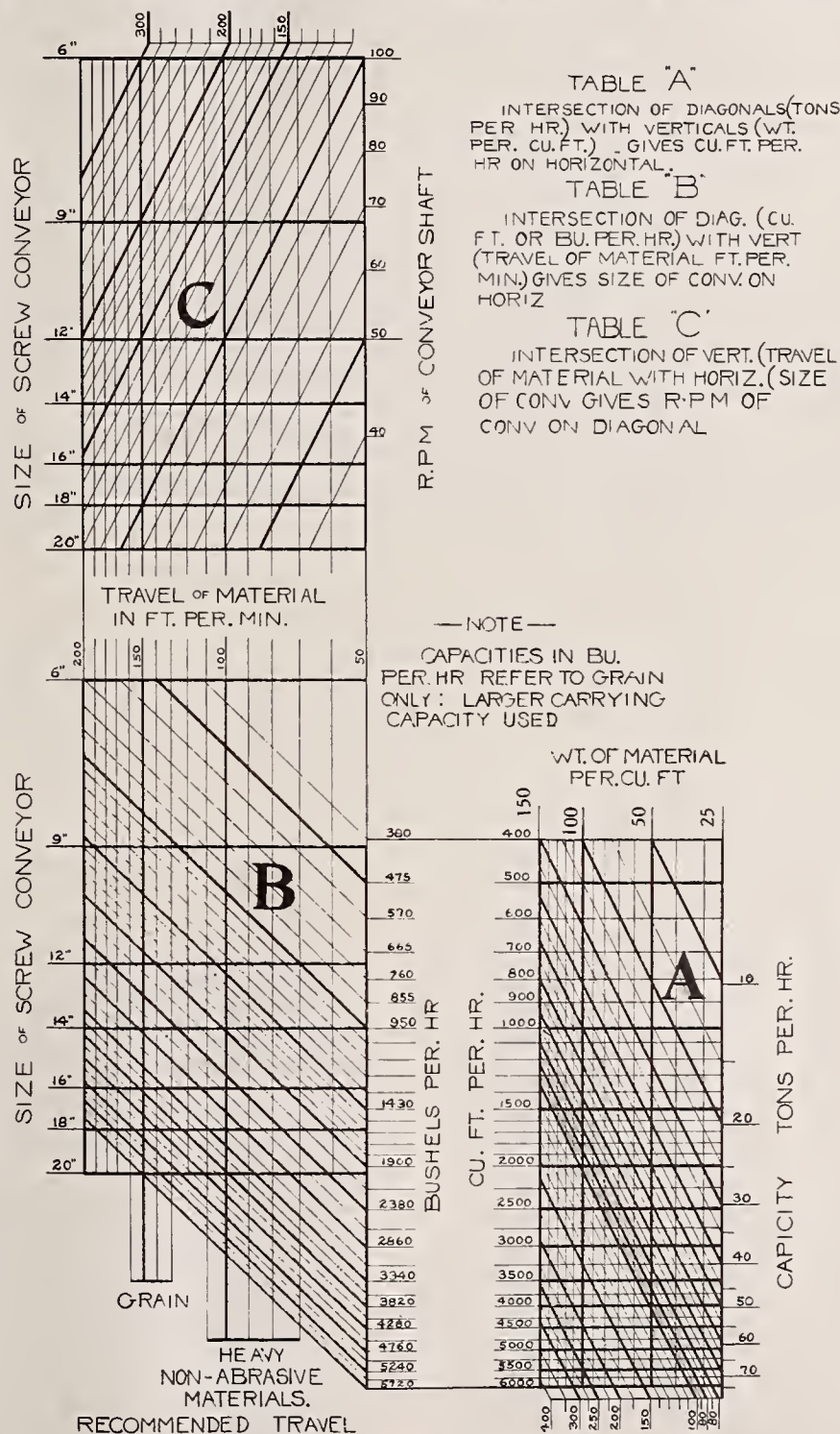
The calculations involved in screw conveyor work are always more or less complicated and the accompanying diagram reproduced from the *Webster Method* should do away with a great many difficulties. Of course, it is impossible for any diagram to contain within its narrow limits all there is to be considered in connection with screw conveyors, consequently in applying it practically, good judgment must be used. For obtaining approximate results, however, this diagram can be made invaluable.

There are really three separate diagrams. The first section A is rarely used in grain calculations.

150-foot point at the top. Then following a horizontal line from the junction point, it will be seen that the size of the screw conveyor is between 14 inches and 16 inches. Since it is much nearer the latter, the 16-inch size should be chosen.

To determine the speed of the conveyor shaft, follow up the 150-foot point to where it strikes the 16-inch line in section C. From here the diagonal goes straight to 110 R. P. M., which is the speed that the shaft must have.

This method can be reversed to find out the capacity of a conveyor of given size, running at a stated speed. Diagram capacities are based on one-third the sectional area of the conveyor itself, and allowance accordingly must be made if the loading



Its object is merely to reduce the capacity in tons per hour to cubic feet per hour. In B the desired capacity in cubic feet per hour, or the equivalent in bushels per hour for grain only is taken, and the size of spiral conveyor necessary for delivering that capacity at various rates of travel is shown. The recommended range of travel rates for grain is indicated at the bottom of the diagram as from 130 to 160 feet per minute. The necessary rotative speed to enable the conveyor to deliver the desired capacity is shown in C.

In determining the size of grain conveyors there are generally two fixed quantities to start with and ordinarily these two quantities are the number of bushels per hour and the required travel of the grain in feet per minute.

For instance, let us assume that it is desired to carry 3,500 bushels of grain per hour at a speed of 150 feet per minute. In diagram B locate the 3,500-bushel mark at the right and follow up the diagonal until it hits the vertical line running from the

will not be fairly uniform. This is mainly a matter of power, as the horsepower increases very rapidly when the conveyor chokes up.

As a general formula for the horsepower for driving spiral conveyors the following is useful:

$$\text{Horsepower} = \frac{CWL}{33,000}$$

wherein C = a constant; W = weight of material in pounds per hour; L = length of conveyor in feet. The value of the constant C is more variable than for almost any other type of conveyor, but for good conditions of operation it is safe to use 0.33 for grain. It should always be remembered that variations in the load cause variations in the power.

Eight thousand acres of swamp land, along the Illinois River in Cass County, Ill., are to be drained and converted into corn fields. A levee, to cost \$250,000, will be erected by a company interested in the project.

Clothing a Grain Car

The Ingenuity of a Grain Dealer in Lining a Leaky Car Proves an Expensive Proposition in the End

By GUIDO D. JANES

Foreman Smith entered the office bringing trouble with him. Proprietor Panhurst saw this the moment he looked up from a market report and anticipated same with a remark.

"I suppose the car we got in yesterday leaks," he began.

"A sieve is water tight compared to it," was the response. "And furthermore we have no burlap for lining it. If you have any sorrow prepare to grieve."

Panhurst agitated his scalp with a forefinger a



"USE THESE FOR LINING THE CAR."

minute. After which he remarked something about a silver lining to the car.

"We will consign the car to Winters," he laughed, "and get it there without loss."

"How?"

"Wait and see. I'll step over home for a minute. There is no time to lose for No. 42 is on time and I want her to pick up the car."

"I will be on the job."

The proprietor left the place straightway, but returned before many minutes with an armful of female garments which he deposited at the feet of Smith who was impatiently waiting in the sacking room.

"My wife's clothing," said Panhurst, holding up a kimono. "Use these for lining the car."

"Your wife know about this?" asked the foreman, who was somewhat astonished.

"No, but that does not matter. This is all cast off wearing apparel. Get busy for there is no time to waste."

"All right, sir."

So with drop skirt, sheath-gown, evening dress, etc., the foreman clothed the car and then filled same with No. 2 wheat. The job was finished none too quickly, for as the last bit of No. 2 dropped in the local freight No. 42 puffed into town. After shunting a few empties onto the coal siding, the engine dropped into the elevator switch and picked up Panhurst's grain. After which she whistled four times for the flagman and moved leisurely out of Ducktown.

As the caboose disappeared around a curve, Mrs. Panhurst burst into the elevator office. While she did not come in a barrel, she was attired in garments long since discarded.

"Husband, husband," she frantically cried, "someone has broken into the house and stolen all my clothes. My very best dresses have been purloined."

Saying this, she fainted in her husband's outstretched arms.

Instead of dashing water in the fainted face, Panhurst shook the inanimate form and revived her by that method.

"Cut that out, my dear," he remarked pleasantly

as she opened both eyes. "Now you feel better. Sit down in the chair. That's it. Now don't worry. I will get them back to you at once. You know that I never lie."

Mrs. Panhurst smiled. "You are a darling," she asserted quickly. "I am delighted that I married you."

"Thanks. Now run on. I will endeavor to return the stolen things."

"Yes, dear."

The minute after the lady was gone there was bustle and confusion; but out of the chaos the elevator man got some brass tacks, and after getting down to these held a consultation with Smith.

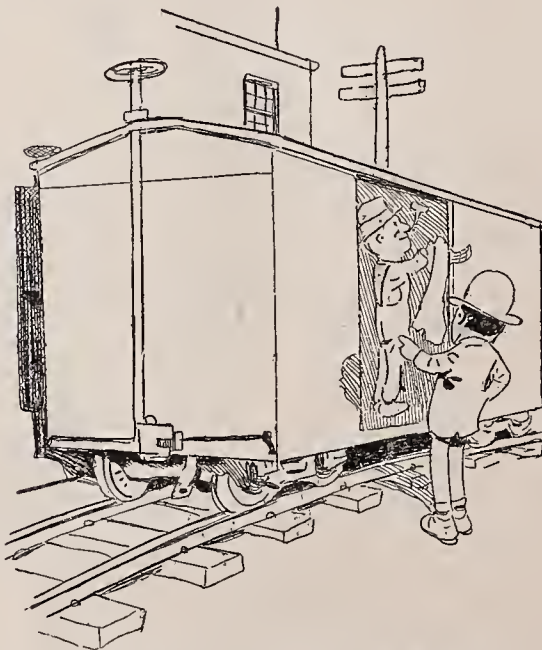
"You catch the passenger train tonight and go direct to the city and call on Winters. He will not have had time to unload and when he does, pick out my wife's garments and come back. Here is twenty-five dollars to see you through."

Smith said he would do as directed and going to his home packed a few articles in a valise and got to the depot in time. Reaching the city late that night he sojourned at a hotel. But at six-thirty next A. M. he was up and bee-lining for Winters. He reached the place too late, however. The car had been unloaded.

"I did not see any female attire," said Winters after the foreman had made inquiry. "But you say you clothed the car with them. Let's go out into the elevator."

Out there they got a line on the garments. One of the men doing the unloading had appropriated the apparel and had sent them home to his wife on Fifth avenue.

Without wasting further time, Smith rushed for Fifth avenue.



"THE FOREMAN CLOTHED THE CAR."

Knocking on the door after reaching the address, he waited.

A woman with lowered head appeared and after explaining his visit, her head hung still lower.

"I am sorry, sir," she hesitatingly said, "but the dresses were too small for me. I gave them to my daughter-in-law over on Dugan Street."

Still undismayed Smith kept up the chase. But upon arriving at the Dugan street destination he met up with defeat. Looking in the window he observed the said daughter-in-law with scissors and knife ripping the garments to pieces. They were being altered for other figures than the original owner.

With ambition gone, hope buried and sorrow writing epistles on his face, the faithful foreman retreated. As he passed the terminal elevator house, Foreman Wrenn yelled to him:

"Say, you from Ducktown, here is a telegram for you. Mr. Winters just now got it."

Running across the street with new hope and new ambition, Smith grabbed the yellow intelligence. Tearing same open he read:

"Compromised the case. Gave Mrs. Panhurst \$100 for new wardrobe. Come back."—B. F. PANHURST.

NEW ILLINOIS GRAIN INSPECTOR

John P. Gibbons of Chicago was recently appointed by Governor Dunne to succeed W. Scott Cowen, resigned, as Chief Grain Inspector of Illinois. Mr. Gibbons was formerly connected with James P. Molloy of Chicago, a grain commission merchant and member of the Chicago Board of Trade. He left, however, about two years ago, to



JOHN P. GIBBONS
Chief Grain Inspector of Illinois

engage in the wholesale liquor business as a member of the firm of Gibbons & Gibbons.

His principal activities have been in the political field and he was a Democratic primary candidate for Chief Bailiff of the Municipal Court of Chicago at the last election. Since, according to precedent, the position of chief grain inspector is nearly altogether a political appointment, the action of the governor in selecting one of his most energetic adherents for the place was not altogether unexpected. Mr. Gibbons succeeds one of the most able and efficient chief grain inspectors whom the state ever had, and not unnaturally his works will be contrasted with those of his predecessor. The office has been very well organized, however, and it should require little effort for the new incumbent to keep the inspection department up to its present standard.

A NEW GRAIN ELEVATOR FOR INDIA

Definite orders have recently been issued for the erection of an experimental wheat elevator at Lyallpur, India. The plans, estimates, and money were ready in October last, but it was found necessary to change the site, and some delay has resulted. It is now expected that the construction will be completed in five months. The elevator is to consist of 16 bins, each having a capacity of 5,158 maunds (190 long tons); 10 bins, capacity of 1,092 maunds (40 long tons) each; 6 bins, capacity of 1,397 maunds (61 tons) each. The total storage capacity will therefore be 101,830 maunds, or 3,740 long tons, and the bagging-off accommodation 6,692 maunds, or 244 tons.

The cost is estimated at a few hundred rupees over 2 lakhs (about \$64,900), and the charges are based on the assumption that the bins will be filled and emptied three times in the exporting season, and that some 2,000 tons will be stored in the off season. The charges will be as follows per maund of 82 2/7 pounds: Initial (receiving, cleaning, and storing for 10 days), 2.5 cents; storage per month, 0.5 cent.

WANT SWEEPING OF GRAIN CARS
FORBIDDEN

A bill has been introduced into the Illinois Legislature which aims to do away with sweeping grain cars. The measure was first agitated in Peoria and has the backing of the Peoria Board of Trade and the Peoria Association of Railway Officials, besides the Illinois Grain Dealers' Association and the Farmers' Grain Dealers' Association of Illinois. It was presented to the Senate on April 2 and its progress is being watched with great interest. Since the bill makes it a misdemeanor to sweep any car which has contained grain of any sort, it is expected, if passed, to eliminate much of the petty thieving which has so annoyed grain men in the past. The provisions of the bill are as follows:

Section 1—Be it enacted by the people of the state of Illinois, represented in the General Assembly: That whoever, other than the owner or authorized agent, or one having lawful charge of a railroad car for the purpose of loading or unloading the same, shall take or remove from any such railroad car any grain or flax seed commonly called "sweeping," or shall sweep or gather together or attempt to sweep or gather together any grain or flax seed in any such railroad car with intent to remove any such grain or flax seed from any such railroad car, shall be guilty of a misdemeanor, and upon conviction shall be fined not less than \$10 and not more than \$200.

Section 2—Every person who shall buy, sell, receive or have in his possession any grain or flax seed commonly called "sweepings" and that has been taken or removed from any railroad car by any person other than the owner or his authorized agent or one having lawful charge of a railroad car for the purpose of loading or unloading the same as provided in section 1 of this act, shall be deemed guilty of a misdemeanor, and upon conviction shall be fined in any sum not less than \$10 and not more than \$200.

Section 3—The word "sweepings" as herein used shall mean any grain or flax seed that may remain or be left in any railroad car after such railroad car has been unloaded in the usual manner.

Section 4—Any person convicted of violating any of the sections of this act, and refusing or failing to pay any fine imposed upon him by any police magistrate, justice of peace, or other court, shall thereupon be imprisoned at hard labor in any county jail, calaboose or other building used for penal purpose, or in any house of correction, or on the streets or public highways until said fine and costs are worked out at the rate of \$1 per day for each day's

A STORY OF SEED OATS

"The Crop Improvement Committee of the Council of Grain Exchanges has demonstrated or has over and over again had it proven to its own satisfaction, which amounts to the same thing," said Secretary Bert Ball recently, "that no one can tell

"From this field he had saved about 400 bushels for seed. One of the high school boys of Kankakee was appointed a committee to test Mr. Robinson's seed grain and took a sample to the school laboratory. He reported over 80 per cent dead or weak. Mr. Robinson received the information with a great deal of incredulity on account of the fine



HIGH SCHOOL LABORATORY TURNED OVER TO THE CROP AND SOIL IMPROVEMENT ASSOCIATION AT KANKAKEE, ILL.

what seeds will grow and which ones will not grow, without a complete test of their germinating qualities. As a part of the work of the committee, we have now enlisted the help of public school children in about one hundred counties in all parts of the grain belt to test corn as well as small grain for the farmers. These children are very enthusiastic

character of his oats in the field. In fact he gave the boy the merry ha-ha, as one might say, and told him to try again with the use of a little more gray matter than he had instilled into the first test.

"The boy, therefore made the test again, but with the same result. Mr. Robinson thereupon made the test himself, as shown in the laboratory picture, and found that the boy had been correct.

"Commenting upon the matter Mr. Robinson said: 'I would not have believed such a result could have been obtained if I had not tested the seed myself. I have put a lot of money and time into our association but this one experience and probable very great saving has paid it back many times for I would have planted my seed oats and afterwards put the blame on Providence when it didn't grow.'"

GRAIN DEALERS OF MERCER COUNTY,
OHIO, HOLD BANQUET

Several of the prize winners in the Ohio State Corn Show and the business men who financed the trip to Washington for the boy corn growers last fall, were the guests of the grain dealers of Mercer County, Ohio, at a very enjoyable banquet held at Celina, Ohio, on March 24. The tables were garnished very attractively with corn mingled with floral decorations. The napkins bore corn designs and the ices were served in the form of various kinds of grain. Despite the bad weather there was quite a large attendance and a big boom was launched for the 1913 corn contest.

W. T. Palmer acted as toastmaster and introduced the various speakers in an apt and happy vein. Several of the contestants in the last contest made brief addresses describing their trip to Washington and incidents in connection with it. Secretary Sandles of the Ohio State Board of Agriculture, although unable to be present, sent a very able substitute in the person of T. P. Riddle, secretary of the Tri-State Grain Producers' and Dealers' Association. Mr. Riddle reviewed the progress of corn crops in Ohio and showed very conclusively just how corn contests had come to be an inseparable factor in the development of corn production. Other speakers included John Gast, representing the business men of Celina and Ex-Speaker S. J. Vining.



PROFESSOR COLLIER EXPLAINING NECESSITY FOR CLEANING AND GRADING TO ELIMINATE WEEDS AND WASTE CONSTITUTING 20 PER CENT OF AN OTHERWISE SPLENDID CROP OF OATS

work, or until said fine and costs shall have been otherwise paid or until said person is discharged according to law.

Elevator companies in Canada have filed a protest with the Board of Grain Commissioners against a recent court decision compelling elevators to account for all over supplies and shortages in their grain bins. It is contended that farmers should not be entitled to anything but the net weight which their ticket calls for. A decision will be given by the Commission following a hearing at Winnipeg.

in their work and they have found that usually 30 to 40 per cent of the seed grains brought to them are dead or very weak.

"A recent case in point and one which was unusually interesting owing to the prominence of the principal involved, concerns the story of C. F. Robinson, president of the Kankakee Crop and Soil Improvement Association and himself a large farmer. Mr. Robinson had a very beautiful stand of oats running some 138 bushels to the acre. His field is shown in one of the illustrations.

Western Grain Dealers Meet at Sioux City

Large Attendance at Annual Convention Despite Heavy Fall of Snow—Interesting Addresses and General Discussion—Freight Claims—Scales and Scale Repairing—Methods of Weighing Grain—Leakage in Transit—Legal Side of Car Distribution—Many Railroad Officials Present

The thirteenth annual meeting of the Western Grain Dealers' Association was held at the Martin Hotel, Sioux City, Iowa, Friday and Saturday, April 11 and 12. A two-foot fall of snow caused delayed trains and prevented as large an attendance as was expected, but about two hundred were present, together with grain solicitors, board of trade men, elevator contractors and agents from scale companies and other firms manufacturing machinery used by the grain men.

President E. A. Fields, of Sioux City, called the meeting to order at 1:30 Friday afternoon, when Secretary and Treasurer George A. Wells, of Des Moines, made his report for the year, which was in part as follows:

The membership of the association at this time consists of three hundred and seventy-three individuals, firms and corporations who operate five hundred and seven elevators.

During the year we have received seventy-three new members and have cancelled forty-four memberships, making a net gain of twenty-nine members during the year. A considerable number of the memberships cancelled, however, were transferred and are included in the new memberships as given.

Considerable time, energy and money is necessarily given to the work of maintaining the organization and securing new members in order to have the necessary funds to carry on the work of the association.

We have never placed the burden of securing new members upon the individual members of the association, but there is no doubt that if the individual members were to assume some responsibility in this work and co-operate with the secretary that the membership could be materially increased.

There are a large number of grain dealers in Minnesota, South Dakota and Nebraska that we believe ought to become members of this association. In fact, if the membership could be extended into these states to the extent that it is in Iowa the dues might be materially reduced and the influence and prestige of the association correspondingly strengthened by the increased membership.

INSURANCE.

The fire insurance department of this association, incorporated separately under the name of the Western Grain Dealers' Mutual Fire Insurance Association has been a decided success and is now on a substantial basis, having just completed its first five years' experience, and without doubt will during the next five-year term establish a record of writing insurance at even more favorable cost than during the first five-year term when the expense ratio is necessarily large, as we now have the equipment, clerical force and facilities of increasing the volume of insurance written to a large extent without materially increasing the expense account. As for example, the expense cost at the beginning of the organization was about \$5 per thousand, whereas it is now being reduced by the increased volume so that the expense is less than \$3 per thousand. Thus, it is absolutely certain that an increased volume of insurance will give you a lower cost and that it is for your personal interest to co-operate in securing new business for the association.

ARBITRATION.

For several years past we have not required the service of an arbitration committee, but we have, however, adjusted, through the office of the secretary, many cases of difference as between buyers and sellers without the necessity of arbitration. Such differences are usually the result of faulty or incomplete contracts that lack in documentary evidence, so that private adjustment is most practicable and I have always, as secretary, made it a part of my duty to settle such controversies without arbitration if possible, resorting to arbitration only when question of general principle are involved. The work of the secretary in this connection is rather difficult and considerable.

We undertake, at all times, to obtain information for our members on any question that may be put to us. We do not always get the results that might be desired, but do the best we can, and the correspondence in this connection is a large part of the work of the secretary's office—in fact the desk is never clear of this kind of work.

The benefit derived may not be apparent to the general membership, but it is in this work that we are able to keep in touch and become informed in regard to the general conditions that may be unfavorable to our members, especially in connection with transportation and terminal markets and a particular case is often used as a basis of general investigation resulting in the correction of abuse or bad methods that benefit the membership at large and it is because of this that we have felt inclined to keep an open door for inquiries and complaints of all kinds relating to the grain business.

Local meetings have been held during the past year at different times at each of the following towns, namely: Oskaloosa, Cedar Rapids, Waterloo, Ft. Dodge, Sioux City, Omaha and Creston. I believe that the work of local meetings should be extended to include other states at such points, possibly, as Norfolk, Neb., Sioux Falls, S. D., and Albert Lea, Minn., and possibly some other points not mentioned.

The local meetings have seemed to be very beneficial in promoting acquaintance among the trade, discussing pertinent subjects relating to local conditions, transportation, terminal markets, etc., that is unquestionably educational and tends towards efficiency in the handling of grain at country stations.

MOISTURE TEST.

During the last year or more we have made it our special business to encourage the use of the moisture tester in buying and shipping corn with the result that a large number of shippers in this territory are making use of the moisture test and I have yet to hear of any particular dissatisfaction regarding



SCENE ON MAIN STREET, SIOUX CITY, IN FRONT OF HOTEL MARTIN, SHOWING SNOW FALL

it. In fact, many of those who are using the tester have advised me that they would not think of being without one.

There was originally considerable apprehension as to whether the moisture test would be acceptable to the farmers, but the reports from the dealers indicate that the farmers are not opposing the use of the moisture test and it is my opinion that it will serve as an education to the farmer and influence him to produce corn and prepare the same for market with the idea of having a minimum water content instead of, as has been the prevailing custom among farmers, of loading the corn with water as much as possible, simply because of the fact that the dealers were inclined to pay as much for water as for corn. The fact that the moisture test is being recognized by farmers was demonstrated at the annual meeting of the Corn Belt Meat Producers Association at Des Moines, to which I was invited to give an address on the subject of the use of the moisture tester in grading corn. Cattle feeders who buy corn were surprised to know the difference in the feeding value of corn based on the moisture test and they will undoubtedly adopt the idea of discriminating against heavy moisture content corn in making purchases for feeding.

TRANSPORTATION.

Car shortage has been the most serious complaint offered by our members in connection with transportation during the past year, and at a meeting of grain shippers held at Ft. Dodge, January 16th, resolutions were adopted requesting this association to make application to the Iowa State Board of Railroad Commissioners for a formal hearing on the supply and distribution of cars and also if necessary to make application to the Interstate Commerce Commission for a hearing on the same matter.

Pursuant to such resolutions, the State Board of Railroad Commissioners granted a hearing at the State House on Tuesday, February 4th, and on the basis of the testimony given at that hearing the board have complied with the request and have prepared an application for a formal hearing by the Interstate Commerce Commission on the question of car equipment and motive power supply and distribution of cars, Judge Henderson, Commerce Counsel for the state of Iowa, having prepared the application as instructed by the board and he has kindly consented to give an address on this subject at the evening banquet.

As is well known by our members, we have given very particular attention to the matter of collecting freight claims during the past seven or eight years, having adopted the plan of having our members refer refused claims to us for examination and if considered as having merit to be filed with the claim departments for collection in the name of the association.

We have for years kept on hand a supply of blank forms to be used in making up freight claims that are provided to our members free of cost, thus assisting them to make up original claims in a proper and uniform manner as we found that many claims were presented to the claim departments without having the necessary documentary evidence attached, in consequence of which they received no attention.

The freight claims presented by our members are generally either loss of grain in transit or damage because of delay in transit.

The general claim agents of the different roads freely recognize the liability of the carrier for loss of grain in transit, the questions, however, of accurate weights at shipping point and destination being persistently questioned by the claim departments while the possibility of leakage in transit is insisted upon by the shipper; all of which emphasizes the necessity, not only of accurate scales, but also of accurate methods of weighing grain that will eliminate the possibility of error in recording the weights and of positively delivering to the car the grain weighed. Also the necessity of better equipment and better methods of cooping cars, especially when loading cars that are not in first class condition.

I believe that an intelligent use of car lining material, such as burlap or paper that is being furnished by some railroads, to be used in the case of loading cars that are not in first class condition, should be encouraged and that the shippers should co-operate with the railroads along these lines. I do not hesitate to say, judging from the extensive experience that I have had in connection with our work of freight claims, that if the grain was accurately weighed and positively delivered to the cars and the cars cooped to prevent leakage in transit, that a large percentage of this class of claims would be eliminated and that the shippers and carriers should undertake to accomplish an improvement in these conditions in the most economical manner possible without undertaking to place unreasonable burden on each other.

TERMINAL MARKETS.

We have received very few complaints during the past year in regard to rules and customs of terminal markets or of irregular or unsatisfactory dealings with the individual buyers. In fact, in a general way, the relations between our members as expressed by circular letters of inquiry along these lines indicate that the relations between our members and terminal market buyers have been, as a rule, very satisfactory and I do not hesitate to make the assertion that the general work of this association has had much to do with the establishment of such condition and that if it were not for the association these relations would not be so satisfactory.

I have observed that in most cases when a terminal market dealer offers a complaint against a country shipper, such shipper is not a member of this association.

This association has always by resolution opposed the idea of delayed reinspection at terminal markets and last November President Fields appointed E. M. Cassidy, Whiting, Iowa; C. H. Harris, Hartlett, Iowa; H. F. Gillespie, Mynard, Neb., and J. A. Tiedeman, Sioux City, to act with himself as a special committee who conferred with a similar committee of the Omaha Grain Exchange with reference to the rule of that market allowing one hundred and ninety-two hours for reinspection of grain. As a result of which the rule was changed by the exchange to allow only one hundred and twenty hours.

The custom of delayed reinspection still prevails to that extent at Omaha and is allowed without limit at Kansas City and Minneapolis, except that at Minneapolis No. 4 or no grade corn must be reinspected within twenty-four hours after sale.

There have been some complaints with reference to interest charges on drafts but not to any serious extent as most of the markets have rules covering this question in what seems to be a reasonable manner.

IOWA STATE LEGISLATION.

This association has always given particular attention to Iowa state legislation affecting the grain trade and the president appointed Mr. Jay A. King of Nevada, D. K. Unsicker of Wright, Ia., and I. L. Patton of Newton, Ia., to act as a legislative committee during the present General Assembly, and at a meeting of the committee held just previous to the opening of the present General Assembly the following bills were presented, i. e.:

(1) An act requiring common carriers to settle claims for delay in transit or for excessive freight charges within a specified time and providing a penalty for failure to comply therewith.

This bill was known as House File No. 43, presented by Rep. Huff of Hardin county, and Senate File No. 2, presented by Senator Chase of Hamilton county and was duly enacted into a law.

(2) An act relating to elevators and grain warehouses on railroad right-of-way or on property belonging to or under the control of railroad companies and giving the Railway Commission authority to determine as to whether or not such elevators shall be placed on such right-of-way or grounds and the terms and conditions on which same may be so placed.

This bill was presented as House File No. 298 by Rep. Huff of Kossuth county, and as Senate File No. 400 by Senator Malmberg of Jasper county. This bill has passed the lower house with slight amend-

ment and has been reported favorably by the Committee on Railroads and Transportation of the Senate in practically its original form and is now on the calendar of the senate.

(3) For an act prescribing the duties of railroad companies to furnish cars to shippers upon applications, applications therefore, penalties, damages, and attorney's fees in full, to furnish reciprocal demurrage charges and power of Board of Railroad Commissioners to suspend demurrage.

This bill was presented by Representative Kulp of Kossuth County and has passed the House with some amendments, although Judge Henderson, Commerce Counsel for the state of Iowa, gave an opinion to the effect that such a law would be unconstitutional.



PRESIDENT E. A. FIELDS

tional. The bill as passed by the House is now in the hands of the railroad committee of the senate.

NATIONAL LEGISLATION.

Your secretary being a member of the legislative committee of the Grain Dealers' National Association, it may be proper to state in this report that there has been no particular activity during the past year.

As you are no doubt aware, there have been numerous bills pending in Congress effecting the grain trade, the most important of which being federal inspection of grain, prohibiting future contracts and railroad track clearance.

All of these bills became dead with the closing of the last administration but the sentiment and disposition to consider such bills is still alive and the grain trade will no doubt be confronted with national legislation along these lines during the coming sessions of Congress.

It is, I believe, of the utmost importance that the grain trade should maintain thorough organization in order to meet the conditions that may arise in connection with national legislation, in the most efficient manner and as was done so effectively in the accomplishment a year ago of the over-ruling of Dr. Wiley's order under the Food and Drugs Act through the efforts of the delegation that attended the conference at Washington last winter under the auspices of the legislative committee of the Grain Dealers' National Association.

I am inclined to believe that the grain trade and the farmers will yet find themselves confronted with requirements under the Food and Drugs Act that will present slipshod methods of producing and selling damaged grains and that the grain trade should actively co-operate with the farmers in undertaking to deliver to interstate commerce grain of good quality that cannot be condemned as unfit food for human beings and animals.

Immediately after the reading of the secretary's report a committee on resolutions was appointed. The president then introduced T. A. Black, president of Sioux City Commercial Club, who in an address of welcome extended the hospitality of Sioux City people to the visiting grain men and incidentally told of the advantages of the city as a convention place.

President Fields then delivered his annual address, which follows:

The work of the Western Grain Dealers' Association during the past year has been partly corrective, but largely educational, in character. District meetings have been held at various places in Iowa and Nebraska which have been well attended by local dealers. The meetings have allowed free expression of opinion, the interest manifested has been very gratifying, and many have approved the educational value of the gatherings.

The bountiful crops gathered in our territory last season caused a car shortage on nearly all lines, acute however on but three or four. Our secretary took particular pains to inform the railroad companies of the unusual needs of the corn and oats shippers, and in January a conference was held at Fort Dodge attended by shippers and railroad representatives with general expression from those in attendance. As a result of this conference, a hear-

ing was held in Des Moines early in February before the Board of Railroad Commissioners and the situation was also called to the attention of the Interstate Commerce Commission. The equipment of some roads has increased very little in the past few years, notwithstanding the larger volume of business to handle. The Interstate Commerce Commission should have authority to investigate the equipment of the carriers, and to order sufficient cars provided.

Complaint was made last fall by a number of our members against the rule of the Omaha Grain Exchange allowing 192 hours for reinspection of grain, and a meeting of a committee of our Association with the grain committee of the Omaha Exchange was held at Omaha in November as a result of which the rule was changed to allow but 120 hours.

The scale inspection work has covered a larger territory than ever before. Certainly members should avail themselves of our inspector's services at least once a year, the cost being small and the benefit great.

The value of moisture testers to our members is shown by the large number installed during the year.

We are all interested in the matter of uniform grades and hope to see grades standardized in all markets. Either this must be done soon by the grain exchanges, or the government will do it for them.

A general advance in grain rates proposed by the railroad companies last fall from many points in Iowa, Minnesota and South Dakota was suspended by the Interstate Commerce Commission and has not become effective except in a few cases. The commission undoubtedly had in mind the facts that the revenue per car on grain from this territory to Chicago is much larger than on most commodities, the volume of grain shipments is increasing and the railroads' statements of earnings are good. There has been little organized effort to control grain rates, much less than to influence rates on live stock and other commodities. If changes should at any time be needed, they ought to be made in a scientific manner, after full investigation of all rates.

THE PARCEL POST.

January 1st, 1913, saw the inauguration of the parcel post system in the United States, and considering the advertising that had been given it as a money saver, grain dealers were surprised to find a material advance in the cost of sending grain samples. The section of the postal law referring to the smallest packages is as follows: "The rate of postage on fourth class matter weighing not more than 4 ounces shall be 1 cent for each ounce or fraction thereof; and on such matter in excess, of 4 ounces the rate shall be by the pound." A special section referring to grain is as follows: "Samples of wheat or other grain in its natural condition, potatoes, beans, peas, chestnuts, acorns, etc., when intended for planting must be prepaid at the special rate of postage prescribed (which is 1 cent for each 2 ounces or fraction thereof), but when intended to be used for food the parcel post rates apply." Now why two identical samples of grain should take different rates when used for different purposes is beyond the comprehension of the ordinary mind. Most samples mailed by grain men weigh from 4 to 8 ounces and the effect of the law is to make the cost of sending such samples from 2 to 4 times as much as formerly. For instance a 6-ounce sample of grain intended for planting would require 3 cents in postage from Sioux City to San Francisco, or any other point in the United States, while an identical sample intended for food would require 11 cents in postage from Sioux City to San Francisco. But there is still another point to consider. Suppose a grain sample should be mailed to someone who wished it for seed, and postage at the rate of 1/2 cent per ounce be properly affixed, and suppose the sample did not suit the receiver as seed grain and he used it for food instead. Would this change of mind make a criminal of the sender who had unwittingly violated the postal law? The law needs fixing. The old rate should apply on samples up to 8 or 10 ounces.

Considerable attention has been given to the basis of settlement of claims for leakage in transit. When bad order to car is evident the carriers are certainly responsible for the loss and most claim departments make satisfactory adjustment of such claims. A few roads are inclined to doubt the accuracy of shippers' weights and offer 50 per cent of the amount of loss, which is unjust to the shipper who has good weighing facilities. Certainly, however, the railroad companies have a right to demand that elevator scales shall be properly installed, inspected each year, and that the methods of obtaining the weights shall be dependable. Shippers are not always careful enough to have these conditions right, nor to see that all precautions are used in cooping cars. We should aim to have our facilities so reliable that we can be absolutely sure of our weights. One object of today's meeting is to determine what facilities are the best, and to arrive at a settlement basis of leakage claims which shall be satisfactory both to shippers and to claim agents.

Among the manner good works done by this association, and for which Secretary Wells should receive particular credit, the campaign for better seed corn stands out prominently. In the spring of 1904 a "seed corn special train" was planned and conducted by the Iowa Grain Dealers' Association and the State Agricultural College. Nine days were given to the work the first year, but the next spring Secretary Wells induced most of the Iowa railroads to run "seed specials" and 1,100 lectures were delivered on the necessity and methods of thorough corn testing. This work was carried on for several

years, and an "oats special" was afterwards run. In determining whether there have been any permanent results from this missionary work, the yields for a term of years must be compared. Even then it is difficult to determine with accuracy how much benefit has been derived from the campaign, so many influences affect the result. We may be interested, however, to know that the yields of corn for the years 1905 to 1912, as compared with the previous eight years, 1897 to 1904, show an average gain of 2 1/2 bushels per acre. It would be more, but for the increase in tenantry and the wasteful methods of farming. Even this gain on the present acreage means an addition of 25,000,000 bushels of corn per year to the Iowa crop.

SHOWING OF THE MIDDLE WEST.

When we think of the fertile soil which this great Middle West possesses, we are tempted to feel boastful, like a native of Iowa approached by a stranger who exclaimed, "This soil of yours is certainly rich, judging by the magnificent corn you raise." "Yes," replied the native, "and we have to plant the dwarf variety to keep it down to this size." Our riches are bountiful, but are we making the best use of them? Considering what nature has done for the Middle West, our showing is poor when comparison is made of the grain yields of the North Central States west of the Mississippi river, comprising Missouri, Iowa, Minnesota, North and South Dakota, Nebraska and Kansas, with those of the North Atlantic States, comprising the New England States, New York, New Jersey and Pennsylvania, whose soil has been worked much longer, and was not so rich to start with.

If comparison be made between grain yields in the United States and those of foreign countries, the showing is much to our disadvantage. The following letter from the Berlin correspondent of the New York Times throws some light on the greater yields of Germany:

"On soil that had been under cultivation for centuries before America was discovered, German farmers are still raising on the average nearly twice as much of all the staple crops per acre as Americans. The explanation lies in two facts: One is the careful and intensive manner in which German farms are conducted, the other is the lavish use of fertilizers, both artificial and manure. German



SECRETARY-TREASURER GEORGE A. WELLS

farms are never splashed with sprawling fences nor straggling rows of bushes, nor are the fields covered with stones. Every inch of land available is tilled and the stones beaten up and used in building roads over which one old cow can haul to market 158 bushels of potatoes, while a good American team gets mired on a so-called road while hauling 83 bushels from the same amount of land. More than half the world's supply of potash goes onto German farms in the form of fertilizer, and every particle of manure produced on the farm goes back to the fields. These facts, together with an intelligent selection of seed, explain the great yields. Two thousand, six hundred and fifty pounds of potash salts and manure were used on every square kilometer of cultivated land in Germany last year, the average for United States being 311 pounds.

"A noteworthy thing in connection with the big yields is the fact that Germany's figures 25 years ago were not much higher than those of America. From 1885 to 1910 the wheat yields increased 57 per cent, rye 73 1/2 per cent, barley 52 per cent, oats 87 per cent, potatoes 61 1/2 per cent and hay 52 per cent.

In 1880 it took 26 pounds of sugar beets to produce 2 1/2 pounds of sugar. Today intelligent cultiva-

tion and seed selection give the same amount of sugar from 13 pounds."

Prof. King, in a very interesting book, "Farmers of Forty Centuries," tells of avoidance of waste and extreme fertilization of soil in the Orient which has been used for 4,000 years. The yields are remarkable in many cases and the average is far above those of the United States.

Not only the matter of increased yields demands our attention, but also the condition of the grain offered for sale. Too large a proportion of the wheat, oats and barley is bleached, sprouted, musty, stackburned or bin burned, while considerable corn is full of moisture. This inferior quality means a loss to the farmer and frequently a much greater loss to the grain trade. As the gospel of "Seed Selection" resulted in better yields so the gospel of "More and Better Grain" can hardly fail to bring results if properly preached.

A committee on legislation, consisting of J. A. King, E. L. Patton and D. K. Unsicker, was appointed in January to look after the interests of the Association in legislative matters before the Iowa General Assembly. A bill requiring common carriers to make prompt settlement for delay or overcharge has become a law. Another bill giving the Railroad Commission authority to prescribe terms of elevator leases, and to make carriers responsible for loss or damage to elevator property caused by their negligence, has passed the House and been favorably reported by the Senate Committee. A reciprocal demurrage bill is also under consideration.

At our last annual meeting a resolution was approved inviting into membership local dealers in South Dakota, northern Nebraska and southern Minnesota, where there were no organizations of grain dealers. There have not been many additions to our list from these states, which means that there ought to be many more during the next year. The necessity of organization is apparent to every thinking man, and the cost is very small indeed, as compared with the results. The present excellent weighing system at all terminal markets is largely the result of organized effort. Conditions in the grain trade, so far as weighing facilities, inspections, handling of cars, claim settlements and arbitration of disputes are concerned, are much better than a few years ago and our Association can properly claim credit for a part of this improvement. Will the wide-awake grain dealers in northern Nebraska, South Dakota and southern Minnesota join us in protecting our mutual interests, and promoting the efficiency of the grain business?

J. A. King, president of the Western Grain Dealers' Mutual Fire Insurance Association, was on the program for an address concerning that body, but telegraphed the meeting saying that at the last minute he had been detained and was unable to be present.

An address by Secretary Wells on "Scale Inspection and Repairing as Conducted by the Western Grain Dealers' Association" was a summary of the work conducted along these lines by the association during the past year.

H. C. Kibe, representing Fairbanks, Morse & Co., of Chicago, spoke upon the methods of weighing grain. He said in part:

"Constant care and caution is what will bring the results. The wagon scale being the one most used has been given the more general discussion and this kind of a scale should be given careful attention at least once a year, but you must keep a continual watch. In weighing grain it is my opinion that where it is possible an adding machine should be used in the office and this will avoid errors otherwise frequently made. Keep the platform of the wagon scales clean as when you are buying grain when roads are as muddy as they are at the present time you are paying for considerable dirt. Be sure that you have a good circulation of air under the pit. In the track scale the installation is a very big part of it."

Mr. Kibe explained how frequent mistakes in weights were made and gave a great deal of information of value to the shipper concerning the care of the scale, loading of the grain and the methods of weighing.

H. A. Foss, chief weighmaster of the Chicago Board of Trade, spoke on a subject which he was well fitted to handle, that of "Grain Leakage and Its Relation to the Present Construction of Cars." In the course of his remarks, Mr. Foss said:

My observations justify the conclusion that both the railroads and the shippers are to blame, to a very large degree, for the leakage of grain that occurs during transit. The shippers, because they do not always use intelligence and care in preparing cars for bulk grain loading. The railroads, because of the character of their equipment, and because of the rough handling of cars by switching crews. For the most part, the shipper is responsible for leaks which are caused by improperly installed and insufficiently braced grain doors, assuming, of course, that the carrier has supplied suitable and sufficient

material. The shipper, or the grain inspector at the terminal market, is answerable for grain in cars being higher than the doorways are boarded, which is a cause for frequent loss of grain in transit. The shipper is also negligent if he loads cars without first repairing any minor defects there may be in such cars.

On the other hand, there can be no question in that the carriers are clearly responsible for much of the grain leakage that occurs. To begin with, I would emphasize the fact that cars in the following condition are absolutely unfit for bulk grain loading, and cannot be made safe grain carriers without general overhauling at repair yards where suitable tools and material are available:

(a) Door posts and side posts broken out at bottom.

(b) End posts that are broken to such an extent that they cannot be effectively reinforced with material such as is available at a grain handling station.

(c) Floors that are loosened from car sills.

(d) Cars with sheathing boards missing.

(e) Leaky roofs.

No amount of paper or burlap lining, or ordinary repairing, will make cars with defects such as I have described safe for carrying grain. I am well persuaded that such defects are caused, for the most part, by needless and unnecessary rough handling of cars by switching crews, and by the use of hump or gravity tracks.

In a paper relating to delays to freight cars, which I came across some weeks ago, the statement was made that the making of repairs as fast as they develop is necessary, in order to have a "100 per cent" car. In discussing this question a railroad official recently said "The sidetracking of cars in bad order during dull times and holding them until they are needed is a short-sighted policy. It is regrettable and unfortunate that many roads retrench as soon as the revenues begin to fall off, and the car repair force is usually the first to suffer, which results in bad-order cars being sidetracked. This retrenchment also affects the repair materials and repair equipment. The storing of defective cars on sidings at the close of busy seasons reminds me of the unsuccessful and shiftless farmer who gives no heed to his farm machinery until he has occasion to use it. It is obvious that, at the close of busy seasons, if carriers would repair their damaged and defective equipment before sidetracking it, both shippers and carriers would be materially benefited.

CONSTRUCTION OF GRAIN CARS.

Now a word with reference to the construction of cars. Of course, the inside car linings receive the brunt of the pressure of the grain, but these linings are not grain tight; hence the outside sheathings must be depended upon to keep the grain from running out of the car. Surely we have had sufficient illustrations to clearly demonstrate the ineffectiveness of the sheathings to satisfactorily perform their function. Even some of the carriers' car builders have at last awakened to this fact. In any event, I have noticed that the Soo Line, the Canadian Pacific, the Monon, the Wabash, the Grand Trunk and other roads, have been building new cars with the braces on the outside.

This style of construction, too, supplants the annoying and "shortage-producing" inside lining. Any weighmaster or grain unloader will tell you that the inside lining is the cause of many kinds of trouble. It delays the unloading; it causes loss of grain on account of the lodgment of grain in lining pockets; and it is the direct cause of the after-sweeping nuisance. Instead of outside sheathings and inside linings, this car is made with tongued and grooved horizontal 2-inch planks.

I have yet to meet a layman who has not a good word for this style of construction. It has been said that certain car builders have criticized the car on the ground that a heavy stream of water thrown against its side or end with great force will wet the inside. This may be true, but it seems to me that if they cannot get moisture into the car except under pressure that this objection is not a sound one.

Of course, I fully realize that cars must be made to carry freight, and freight is grain only on certain occasions. In fact, statistics show that if each and every box car on an extensive grain carrying line carried its proportion of grain it would carry only about 2 1/4 loads of grain each year. This being true, it is obvious that cars should be carefully inspected and approved before loading with bulk grain. And in this connection, the loader of grain has a duty to perform.

It is true that during the past winter, on account of the car shortage situation, many of you have been tendered and have loaded cars that under ordinary conditions would be considered unfit for carrying bulk grain. In consequence of this shortage, you have, no doubt, overhauled many an old box that should have been in the scrap heap, but that does not excuse a shipper loading cars that he has not carefully inspected on the inside and outside, nor does it excuse him from adopting reasonable precautionary measures to reduce the possibility of leakage to a minimum. Thousands of cars reach the terminal markets each year leaking that would not have leaked had the shipper used due diligence in preparing them. In this connection, it is astonishing what the application of a little paper will do to prevent grain leaking out of cars. I know this to be a fact, for since paper has been introduced in preparing cars for bulk grain loading in the Chicago district, evidence of leakage from out-going cars has been appreciably and gratifyingly reduced. The use of cement coated nails, too, for securing loose side and end sheathing boards to the sills has also materially aided in reducing leakage.

In conclusion, I would invite attention to a few precautionary measures that can be depended upon to reduce leakage to a minimum. To begin with, we must eliminate cars with "broken-out" door, side and end posts, cars with leaky roofs, and cars with floors loose from the sills, as well as cars saturated with fertilizer or oil stench.

METHODS OF REDUCING LEAKAGE.

First, it is the duty of the loader to carefully inspect the car to be loaded—inside and outside. Should this inspection disclose any minor defects, such as short floor boards, defective floors, or broken lining boards, the application of paper or burlap, held in place with a piece of board, will prevent leakage at such defective places. Be it remembered that the inside inspection of the car should be especially thorough at the ends.

The next step is to install the grain doors. The application of paper or burlap pads on the face of door posts that are filled with old nails and spikes will make tight joints between grain doors and posts.

Sometimes it is well to cover the entire grain door with paper. In any case, the grain doors should be stiffened with an upright brace on the outside, secured at the sill with a well nailed cleat, or by toe-nailing. This brace will also tie the doors together and prevent a weaker door or board from bulging more than another.

Cars constructed with outside sheathings require special inspection, both before and after loading. Bear in mind that no matter what you may have done to the inside of such a car, should the sheathings become loose, there is liability of leakage. That is the reason why it is so important to securely fasten any loose sheathing boards to the sills. In this connection, experience has repeatedly demonstrated that the cement coated nail is far superior to the ordinary smooth wire nail, in that it secures a much firmer hold on the sill.

That the precautionary measures I have recommended are worth while is clearly illustrated by the car condition records of my department, which show that during Chicago's extensive wheat handling months of July, August and September of last year 17.3 per cent of the cars weighed showed evidence of leakage. On the other hand, during the heavy corn handling months of December, January and February, only 11.9 per cent of the cars weighed showed evidence of leakage. The material increase in the percentage of leaking cars during the wheat handling months as against the smaller percentage of leaking cars during the heavy corn handling months indicates clearly that a car that is "corn-tight" may not necessarily be "wheat-tight." In other words, that it requires more care to prepare a car for bulk wheat loading than for loading with bulk corn.

After Mr. Foss had concluded, H. R. Grochau, claim agent, Chicago, St. Paul, Minneapolis & Omaha Railway, delivered a very well written address upon "Freight Claims."

At the close of this paper a general discussion ensued upon scales, weights, leakage in transit and freight claims. Among those present who took part in this discussion were:

F. H. Hammill, Assistant General Superintendent, Chicago & Northwestern Railway; H. C. Howe, Claim Agent, Chicago & Northwestern; W. O. Bunker, Claim Agent, Chicago, Rock Island & Pacific; B. D. Bristol, Claim Agent, Illinois Central; G. H. Hunt, Claim Agent, Chicago Great Western; S. W. Patton, Claim Agent, Minneapolis & St. Louis; J. W. Newell, Claim Agent, Chicago, Burlington & Quincy; F. C. Maegly, Assistant General Freight Agent, Atchison, Topeka & Santa Fe; W. N. Goodman, Richardson Scale Company; A. S. Purves, Avery Scale Company, and E. J. Nolan, scale expert, Western Grain Dealers' Association.

THE BANQUET

On Friday evening in the banquet hall of the Martin Hotel a splendid banquet was served, largely attended and very much enjoyed. President Fields acted as toastmaster and on the list of after dinner speakers were the names of J. Ralph Pickell, of Chicago; Hon. J. H. Henderson, Des Moines, Commerce Counsel for the state of Iowa, and Prof. A. M. Ten Eyck, of the State College of Agriculture, Ames, Iowa. To conclude the evening the program committee had arranged a vaudeville entertainment and every one present stayed until the last act.

"Policies of years gone by are discarded and transportation facilities must be national in extent and sufficient for the nation's commerce," said Hon. J. H. Henderson in an address upon "Legal Aspects of Car Supply and Distribution."

"Reasonable rates, no unjust discrimination nor undue preference given to any locality, traffic, shipper or consumer is the law, and adequate provision to prevent violation, redress wrong and prescribe rules and regulations is given in the statutes."

Mr. Henderson brought up a number of inter-

esting and valuable points in his address and his remarks were very much applauded.

Prof. A. M. Ten Eyck of the Farms Crops Department of the Iowa State College of Agriculture at Ames then talked upon "Conservation of the Soil and the Crop." In part, he said:

Conservation of the soil and the crop is a big subject. It is an old saying that "you cannot save your cake and eat it," but Secretary Wells has given me the pleasant task of proving that this may be done. The literal meaning of "conserve" is to save, to preserve, to keep unchanged, but we are using the word tonight in a much more liberal sense. Soil conservation does not mean saving the soil intact. Rather it means a larger use of the soil, by increasing crop yields without decreasing soil fertility; in fact, it really means increasing soil fertility by proper soil management and fertilization which will result in the production of larger crops.

The soil is a multiplier and the more "talents" we give it the more it will gain. In the old Bible story the man who really conserved his talent was the man who used it and multiplied it. The seed placed in the earth will bring forth some an hundred-fold and some a thousand-fold, according as the farmer has fertilized the soil and cultivated the crop.

Professor Snyder of the Minnesota Experiment Station has shown that 8 tons of stable manure applied to one acre of land caused an increase in the production of three succeeding crops, amounting to \$25 in value or over \$3 per ton for the manure. The manure was applied to clover. It increased the clover crop and the next year gave a corresponding increase in the crop of corn following the clover and the oats which followed the corn yielded ten bushels more per acre on the manured land than on the land which received no manure, but which had been otherwise similarly cropped and tilled.

Dr. Hopkins of Illinois is authority for the statement that "the United States is shipping to Europe each year more than 1,000,000 tons of our best phosphate rock for which we receive at the mines the paltry sum of \$5,000,000. If this phosphate were retained in this country and applied to our soils it would be worth not five millions of dollars but a thousand million dollars for the production of food for the oncoming generations of Americans."

Quoting further from Dr. Hopkins: "For \$5,000,000 we export to Europe each year enough phosphate for 1,400,000,000 bushels of wheat or twice the average crop of the entire United States. Meanwhile our ten-year-average yield is 14 bushels per acre, while Germany's yield has gone up to 29 bushels, Great Britain's to 33 bushels and Denmark's to more than 40 bushels as the average for a decade."

Soil conservation is accomplished by maintaining soil fertility, but the correct farming methods proposed when put into practice may actually increase soil fertility and give greatly increased crop yields. Thus we may conserve our soil and use it and enjoy its products almost indefinitely, which is figuratively having our cake and at the same time eating it.

CROP CONSERVATION.

Crop conservation comes after and depends largely on soil conservation, because if the fertility of the soil is not maintained there will finally be no crop to conserve. We have an example of this in the abandoned farms of some of our eastern states, and in the decreased yields resulting from continuous grain farming throughout large areas in our newer western states.

It is true that up to the present the purpose of agricultural education and instruction has been largely to increase production with little or no attention to the use or saving of the crop. In a recent interview our new Secretary of Agriculture is reported to have said, "The farmer's problem is not limited to production, we must promote productivity; but fully as important, if not more important, are the questions of marketing, and distributing and living." This indicates that the Department of Agriculture at Washington will devote much attention during the present administration to the problem of crop conservation, including not only the raising and saving of the crop but its marketing, distribution and final utilization by the consumer.

Crop conservation means not only to produce largely and economically and to save what we produce, but it means controlling the production, so as to prevent over-production or under-production; it means sufficient production to supply to consumer at a reasonable price which will return to the farmer a fair profit on his labor and a good interest on his investment, after the soil fertility has been maintained.

Consumption is more or less of a fixed quantity and does not change much from year to year. Production should be more regular. The present habit of our farmers is to go to extremes in the production of certain crops. For instance, if there is a shortage of corn this year and the prices high, we will increase our average acreage next year, which is likely to cause an over-production of corn and lower prices in 1914. Or if oats are plentiful and relatively low in price this year, farmers will not plant oats next spring, which is likely to result in a short crop and relatively high prices in 1914. In fact, under the present system and lack of organization in the farming business the tendency is for the farmers to go to extremes and usually to their own financial disadvantage, because they are apt to plant a crop in large area when it is dear in price and are often obliged to sell the product on a low-priced market.

Much grain is wasted in quantity and unnecessarily injured in quality by improper or careless handling after harvesting. The farmer who is a good producer is too often a poor handler of the crop after it is grown. Sometimes his methods of

handling the crop from the field to the elevator are not only careless but show absolute neglect. For instance, in a part of our grain growing country I have observed the custom which the farmers practice almost uniformly of leaving the grain in the field in the shock until they are ready to thrash. While the climate of this area is generally favorable to such a method of handling the grain, it is not always so and some seasons the grain is very badly injured by excessive rains before it reaches the thrasher. If the farmers of this section would adopt the method of stacking the grain in well-made stacks as soon as it is dry enough they would in a series of seasons make a good investment by this extra labor, yet the old custom continues.

The majority of farmers, however, I believe, know how to handle their crop, but are prevented by unfavorable weather or by insufficient and inefficient labor, or other conditions which they cannot overcome. Also, the grain dealer is in part at fault. The neglect of the crop, especially as regards quality, is encouraged by him because he usually gives too little consideration to the point of quality in grain in fixing the purchase prices. I have stood at an elevator in western Kansas and observed the delivery of wheat which in my judgment should have been given three different grades, yet this grain was all graded No. 2 and sold at the same price.

THE ERA OF AGRICULTURAL EXPERTS.

The day of book farming and second-hand platform advice and instruction is passing. This is the day of county agricultural experts. Demonstration, example and up-to-date practices on the farm is the



PROF. A. M. TEN EYCK
State College of Agriculture, Ames, Iowa.

present day watchword of agricultural progress, and I hope you grain men will get behind the movement with your money and your influence, because it is the only successful method to establish correct farming practices which will most fully conserve the soil and the crops.

Crop conservation may be increased by providing more and better storage capacity for the grain on the farm. It is too common a practice in our western states to store corn in great piles on the prairie with no protection from rain and snow. The practice of selling grain at thrashing time tends to dump a large quantity on the market at one time, which has a tendency to glut the market and reduce prices. Also the railroads and grain elevators are taxed beyond their capacity to handle and care for the grain properly under the present system. If more of the grain of all kinds could be stored on the farms and marketed gradually during the year it would be to the advantage of both the seller and the buyer, and I believe would in a measure prevent speculation and manipulation of prices.

In the old Egyptian days Joseph bought and stored grain in great government store houses during the years of plenty and was able to feed the people during the years of famine without increasing the price of grain. God himself introduced this method of conserving the crops for the use of a nation, and I believe that is not an impracticable plan to be adopted today in our country. We may well establish government warehouses which would buy and store the surplus in the years of abundant harvest, distributing such surplus in the leaner years, thus conserving the crop and establishing more uniform prices both to the purchaser and the consumer.

Crop conservation means using the crop, getting it to the consumer at the lowest prices consistent with a reasonable profit on its production and handling. It appears that it is too often the practice of some of our middlemen today to conserve the crop by making the price so high that the consumer cannot afford to buy our farm products in such quantities as they might and would like to consume. This condition is not so true regarding the handling of our standard grains as with other farm produce, but taking farm products as a whole the prices to the consumer are apparently far too high and have no direct relation

to the purchase price paid to the producer. For instance, it appears from a recent report of the United States Department of Agriculture that while average purchasing prices of farm products were 20 per cent less at a certain date in 1913 than at the same date in 1912, yet the average retail prices to the consumer were practically the same in 1913 as in 1912.

SATURDAY MORNING SESSION

At Saturday morning's session, F. C. Burrell, who now has charge of the western office of Burrell Construction Company of Chicago, spoke very interestingly upon elevator construction. He advocated fireproof elevators and urged the advantages of all concrete structures. Also he discussed steel clad elevators as proof against fire of external origin.

"Twenty-five to thirty per cent of elevator fires in Iowa are caused by sparks from locomotives," said Secretary George A. Wells, and he was corroborated by Mr. Burrell.

That cleanliness in connection with grain elevators almost is a forgotten grace, Mr. Burrell asserted. His suggestion that cupola windows be scrubbed aroused a flood of criticisms from the grain men, who asserted their several towns would call a lunacy commission to consider their cases if ever they were seen to be polishing cupola panes.

Iron clad elevator construction also was objected to as being unfair to the woodpeckers. Addition of outside fire escapes as protection to employees who might be trapped in a burning building was discussed.

Technical matters connected with man lifts, proper location of inweighing and outweighing scales, the one-leg versus the two-leg elevator and allowance for settling of cribbing were warmly debated.

RESOLUTIONS.

The following resolutions reported by the Committee on Resolutions were adopted by the body:

Whereas, the matter of claims in process of adjustment against the railroads is of vital importance to the grain trade;

Resolved, that in order to expedite their adjustment and co-operate with claim departments, all dealers be urged to provide accurate means of weighing loaded cars, to provide and keep records of unquestioned accuracy. We request our secretary to provide suitable blank forms or affidavits of weight to be furnished dealers on request and suggest that dealers fill and file their weight certificate at time of loading cars.

Whereas, the largest losses of recent years have been experienced because of a shortage of grain cars and means for their transportation, and it is generally understood that at eastern terminals cars are used for storage by consignees;

Resolved, that we endorse the efforts of Congressman Prouty to secure legislation requiring the unloading of cars within reasonable periods.

Resolved, that we commend the officials of the Western Grain Dealers' Association in their efforts through the Railroad Commission of Iowa to procure from the Interstate Commerce Commission a hearing and investigation as to the adequacy of freight equipment and urge that provision be made by law if necessary for the acquirement of the same.

We commend the work of our agricultural extension bodies and urge the department at Ames, in addition to other forms of extension work, to investigate the losses occasioned by failure to properly care for grain after it is grown and harvested.

Whereas, there are no statistics compiled by the state departments of Minnesota or South Dakota showing acreage and yield by counties as is common in other states;

Resolved, that this association call it to the attention of the proper authorities and encourage the compilation of such statistics.

Whereas, the use of paper or burlap in cooping cars to be loaded with grain has materially reduced the loss in transit; therefore

Resolved, we recommend that the railroad companies furnish this material to the shippers to the end that the loss may be reduced to the minimum.

Resolved, that we congratulate Sioux City on its convention conveniences and express our appreciation of its hospitality.

ELECTION OF OFFICERS.

E. A. Fields, of Sioux City, unanimously was re-elected president of the association. His efficient administration entitled him to a second term, it was stated by I. C. Edmunds, of Marcus, chairman of the committee upon nominations. E. C. Ericson of Story City was chosen vice-president. Directors elected were: C. H. Harris, Bartlett; J. F. Westrand, Omaha; F. D. Milligan, Jefferson; N. S. Beale, Tama; J. F. Weart, Cherokee.

The place of holding the next annual meeting was left to the selection of the directors to be determined by the new board. The convention then adjourned and most of the delegates and visitors left immediately for their respective homes.



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This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching persons connected with this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, APRIL 15, 1913.

 Official Paper of the Grain Dealers' National Association
and of the Illinois Grain Dealers' Association.

ELIMINATING THE MIDDLEMAN

At the first national conference on marketing and farm credits, held in Chicago recently, practical farmers, college professors and representatives of consumers' organizations discussed the problem of marketing the products of the farm, with a view to (1) reducing the cost to the consumer and (2) increasing the returns to the producer. Naturally, most of the proposals advanced to bring about the desired result were theoretical, since few of the delegates to the conference have had practical experience in marketing farm produce. But the majority of the speakers advocated closer co-operation between farmers and consumers and the elimination of the middleman.

It was pointed out that the difference between the price the farmer receives for his produce and that which the consumer is compelled to pay for it is too great, and that the railroad, the middleman and the retailer are exacting too large a proportion of the profits. Attention was called to the success of co-operation in Denmark, where the farmer receives 92½ per cent of the final purchase price of his products, as compared, for instance, with 13 per cent received by the Texas farmer without co-operation.

It can not be said, however, that the conference succeeded in solving the problem it was called to consider. It has never been denied that if the farmer could sell direct to the consumer, both would be benefited, but that this can be done generally in a country the size of the United States is not seriously believed by any except academic reasoners. As a case in point, the gentleman who discussed the marketing of grain before the conference, although

committed to the cause of co-operation, advanced a number of reasons why the farmer does not receive more for his grain. Lack of storage room on the farm, lack of capital, poor roads, poor quality of grain and a general ignorance of market conditions, resulting in the producer marketing the bulk of his crop immediately after harvest, were some of the causes specified. This, of course, is only another way of saying that the farmer is dependent on the middleman for the means of delivering his grain to the consumer. Nor should the fact be overlooked that in this instance the middleman is rendering a valuable service for which he is entitled to just compensation.

THE APRIL GOVERNMENT REPORT

While crops are not made in March and April, at least in this latitude, the April crop report issued by the United States Department of Agriculture can not fail to be a source of gratification to the grain trade at large. The report shows the condition of winter wheat on April 1 to have been 91.6 per cent, as compared with 80.6 on April 1, 1912, 83.3 on April 1, 1911, and a ten-year average of 86.3 on this date. In other words, if the government crop estimators are correct, winter wheat gave greater promise of a bountiful crop on April 1 of this year than it has at any time in the history of the official crop reporting of the United States, with but two exceptions. On this date in 1903 the condition of winter wheat was 97.3, and at the corresponding date in 1901 it was 91.7.

The April condition indicates a crop of 563,000,000 bushels; and while no one expects that this amount of winter wheat will be harvested, the report shows that the crop has gone through the winter unusually well and that there is no prospect of another lean year in the states where this crop is an important item of production.

MINNESOTA INVESTIGATION ENDS

The Bendixen Committee, appointed by the Minnesota House of Representatives to investigate the grain markets at Minneapolis and Duluth, has completed its work, and at this writing is engaged in formulating its report. What the nature of this report will be and how it will affect the grain interests of the two Minnesota cities can, of course, only be surmised.

It is announced that the report will be conservative to a degree. A mild criticism of the Minneapolis Chamber of Commerce because of some of its rules, some condemnation of the state inspection department and possibly a recommendation that speculative trading in futures be abolished are expected to be embodied in the published result of the Committee's hearings. There will be no wholesale condemnation of the Minneapolis Chamber of Commerce and no severe castigation of its methods of trading.

That this is the only result that could be expected has been patent to any person familiar with the grain trade who has followed the hearings. Divested of innuendo, insinuation and recrimination, the evidence brought out by the Committee has failed, not only to show

cause for criticism, but any real excuse for the investigation. Conceived in iniquity, the investigation has done little more than reflect on the legislative intelligence of Minnesota. Directed against an organization of high-minded, fair-dealing business men engaged in marketing the crops of a great section of our country, this legislative inquisition has reacted on those who inspired it and has left the institution at which it was aimed unharmed.

While no real harm has been done, the investigation has not been without its evil effects. It has aroused suspicion among a class of people to whom it is impossible to explain the workings of an institution as complicated as a modern grain exchange, and has afforded an opportunity for sensational newspaper exploitation of self-seeking individuals whose whole energies are directed against the best interests of the legitimate grain trade of the country. If the report of the Committee were to take the form of an apology to the grain men who have been harrassed and inconvenienced by the investigation, it would only be right and proper.

THE TARIFF AND THE GRAIN TRADE

While the grain trade of the United States will not be so seriously affected as will the milling industry should the proposed Underwood tariff become a law, any measure which works out injuriously to the one can not fail to harm the other. The bill now before Congress reduces the tariff on barley malt from 45 cents to 25 cents a bushel, on buckwheat from 15 cents to 8 cents, on oats from 15 cents to 10 cents, on cleaned rice from 2 cents to 1 cent per pound, and on wheat from 25 cents to 10 cents a bushel. It further provides that flour shall be admitted free from countries which do not tax American flour. It is this latter provision which spells ruin to American millers and which will ultimately react on the grain trade unless flour and wheat are placed on a parity.

Assuming that the bill becomes a law in its present form, millers in this country would immediately be subjected to the competition of English mills with their unlimited supplies of cheap wheat from the Argentine, India and Russia. Although Canada now exacts a duty on flour from the United States, it is not believed that the Canadian government would hesitate long before embracing the opportunity to build up a great milling industry by repealing the tariff on flour.

The immediate effect of free flour and a duty of 10 cents a bushel on wheat would be to close down a great number of mills in the United States and make business unprofitable for those which continued to operate. That this could not fail to have a depressing influence on the grain business is at once apparent. Nor would the producer be benefited in the long run by the preferential duty on wheat. Ultimately prices would work to an international level, but in the meantime the farmer's home market would have been destroyed and the production of wheat in this country would have been seriously curtailed.

Altogether the tariff as it is now drawn is a serious menace to the milling and grain trades, and grain dealers should join hands with the

millers in an effort to bring Congress and the Senate to a proper realization of the seriousness of the blow that is being aimed at two of the country's greatest industries.

CO-OPERATION IN CANADA

With the passage by the Alberta legislature of the measure known as the co-operative elevator act, the farmers' grain movement in Canada has received great encouragement. The bill provides for government aid to farmers' companies in acquiring, erecting and remodeling elevators throughout the province; and while its provisions are extremely liberal, the bill appears to have been carefully drawn and to offer few, if any, reasons for criticism. Under the act co-operative companies will be enabled to engage in the grain business practically on government money and without hampering restrictions.

Of course the plan is paternalistic but the Canadians are not concerning themselves with this phase of the matter just now. The development of western Canada depends on the provision of adequate facilities for handling the rapidly increasing grain crops, and the governments of the different provinces, as well as the Dominion government, realize the necessity of adopting heroic measures.

Manitoba believed the solution of many of the grain handling problems was to be found in government-owned elevators, but the failure of this plan to work out in practice is now a matter of history. Probably the government of Alberta will find that the policy of financing farmers' companies will not prove as successful as anticipated. Not all of the companies formed under the act will succeed; but if a reasonable percentage of them operate long enough to pay back the government loans in the specified period of twenty-one years the object of the framers of the law will have been accomplished—that of providing elevators where they are most urgently needed.

Incidentally, it is well to remember that even if the plan meets with the success anticipated by its most sanguine advocates, it does not follow that it could be logically adopted on this side of the border. As an expedient to develop the grain business in a new country, government aid may be justified, but as a means of increasing competition where present elevator facilities are adequate it is indefensible.

PROGRESS OF GRAIN STANDARDIZATION

Because of the failure of Congress to pass a sufficiently large appropriation to carry out the work of grain standardization as planned, Dr. J. W. T. Duvel, in charge of this branch of the work of the United States Department of Agriculture, will be compelled to decide between completing the wheat grades so as to include the Pacific Coast trade or making an effort to establish grades for corn. The money made available for use of the Bureau of Corn Standardization is not sufficient to do both and one or the other will probably have to go over until another crop year.

Six laboratories have been at work on the grain grades, and had a larger appropriation

been made by Congress another one would have been established on the Pacific Coast. The present laboratories are at Chicago, Decatur, Ill., Fargo, N. D., Kansas City, Baltimore and New Orleans. All kinds of grain are tested at the Chicago laboratory, while that at Fargo tests fall wheat, and the one at Kansas City winter wheat.

The corn work is now done at Chicago, Decatur and New Orleans, but it is desired to establish a corn grade that will enable the farmer to grade his own corn with practically the same assurance that he can wheat under present market conditions. The grade will be based generally upon the soundness of the corn and the cleanliness of preparation for market. It appears to be the belief of the Bureau that with grades defined along this rather broad line it will be possible for the farmer to grade up his marketable corn by throwing out the unsound ears, making up in the price received for the higher grade thus created the loss occasioned by reducing the quantity. The effect, of course, would be to prevent much unsound corn ever reaching the market.

The more technical tests for moisture and acidity will be made in laboratories at each important grain market, and it is planned to make this branch of the work self-supporting by charging a small inspection fee on appeals from the grade made by the inspectors, to be paid only if the analysis sustains the grade made by the original inspection.

A TRIAL OF STRENGTH

The first decisive action of the recently organized North American Export Grain Association was taken during the past month, when notice was served on grain importers in England that after May 1 all shipments will be subject to payment on delivery. Heretofore British importers have refused to buy American grain except on sixty-day draft, rigidly following a precedent established in the days of sailing vessels, when two months were required to cross the Atlantic. Repeated efforts have been made by grain exporters of this country to induce buyers on the other side to adopt terms more compatible with modern business methods, but all to no avail. Finally the matter became so serious that American grain exporters were compelled to organize for mutual protection.

The North American Export Grain Association was formed in New York three months ago, and now numbers among its members practically every grain exporter in the United States and Canada doing business through the Atlantic seaboard. In addition to individual shippers the membership includes the Chicago Board of Trade, New York Produce Exchange, Commercial Exchange of Philadelphia, Montreal Corn Exchange Association, Winnipeg Grain Exchange, Merchants' Exchange of St. Louis, Kansas City Board of Trade, Baltimore Chamber of Commerce, Duluth Board of Trade, Toronto Board of Trade and New Orleans Board of Trade.

The organization is in a flourishing condition and will undoubtedly become a power in the grain trade. It is making no unjust demands

and there should be little or no opposition on the part of British importers. At the same time those who are familiar with the autocratic methods of the powerful associations in the English grain trade do not anticipate an easy victory. Precedent and tradition are dear to the British heart, and a change of established customs is not easily brought about. In the face of this expected opposition, however the American exporters will undoubtedly stand firm for their rights. They have put the matter squarely up to the importers and are determined to make this a real test of strength. Successful in this, its first, fight the Association will seek to correct other abuses in the export trade.

WANTED: MORE LIGHT

This is a day of investigations. The public wants light and demands light. No harm can come from throwing the light into the dark corners and uncovering the hidden places. It promotes progress.

The Illinois State Senate has appointed a committee to investigate the report that a fund had been used to induce the passage March 26 of Senate Bill No. 126, a bill to abolish the law against "Puts and Calls," a form of insurance made use of as a function of boards of trade.

No harm can possibly come from such an investigation. It is the light of knowledge that has practically put out of business the manipulator and the cornerer, each a menace to legitimate business, and the marts of this country can safely celebrate their passing. But the important part that boards of trade play in our industrial life will show more and more plainly through investigation. Without them there would be no place to provide a market and establish values. They are absolute economic necessities, and buyers and sellers on these markets should have the protection necessary to the safe conduct of their business.

It was not the use, but the abuse of the practice of trading in "Puts and Calls" that caused this form of trading to be found illegal by the courts some years ago. In its abuse it is unquestionably merely a form of gambling, and the word gambler in connection with boards of trade, like the terms plunger, manipulator and cornerer, is passing. They have been crowded out by a newer order, which is legitimate speculation.

James A. Patten could be taken as a type of the legitimate speculator, as distinguished from the avowed gambler. According to the idea of the latter, life itself is a gamble. The farmer who planted his seeds, the merchant who purchased a stock of goods, the traveler who started on a journey, participated in a hazardous speculation. This may have been true under the old order, but is growing more and more untrue. Railroads have been compelled to adopt all manner of safety devices and appliances to the end of carrying the traveler safely to his destination. The merchant is no longer at the mercy of the seller of adulterated or unsound goods. And we have the authority of One who is guardian over all that while time shall last, "winter and summer, seed time and harvest shall not fail."

EDITORIAL MENTION

Details of losses in the flooded districts are coming to hand slowly, but it is certain that many elevators were damaged.

Buffalo elevators will shortly be called upon to handle the enormous quantities of grain that have been piling up at the head of the lake.

This is the time of year when it pays to overhaul machinery and belts. Don't wait until the last minute to place your orders for needed repairs.

Some of the secular papers in the Northwest have been able to see the funny side of the Minneapolis investigation and have characterized it as a farce.

Apparently the state inspection department will be the only sufferer as the result of the Minneapolis investigation; but then somebody had to be the goat.

About every so often some one is injured by a wagon dump failing to work properly. This is one of the things about an elevator that should receive careful attention. It is better to have the dump in proper working order than to take the chance of a personal injury suit.

As a result of the decision of the district court at Duluth that memberships in the Board of Trade of that city are assessable as personal property, it is probable that no further action will be taken by members of the Minneapolis Chamber of Commerce to fight the assessment of their memberships.

With greater stocks of grain in store and afloat in the harbors at the head of the lakes than at any time in the history of the trade, elevator men have eagerly awaited the opening of navigation. Early in the present month practically every inch of elevator space at Duluth was filled, stocks there having exceeded all previous records by several millions of bushels.

Every so often some one bobs up with statistics showing the value of the corn crop. A recent genius has figured that the amount of money represented by the 1912 corn crop would pay for the Panama Canal, build fifty battleships, cancel the interest-bearing debt of the United States and still leave enough to create several millionaires—which is going some.

In nearly every agitation that has been started in recent years looking to the abolition of future trading on American exchanges attention has been called to the fact that Germany had prohibited deals in futures on commodity exchanges. This argument is no longer available, for one of the most important commercial organizations in the Fatherland has succeeded in bringing about the necessary legislation to permit future trading. This organization is the Cotton Exchange of Bremen. German spinners and buyers of cotton have been operating with-

out a futures' market since 1896 and as a consequence have been placed at a disadvantage with their competitors in England and the United States. They have been compelled to hedge their trades in Liverpool and New York, but could not afford to be without this protection even at the increased cost and annoyance.

The attitude of the present administration in the matter of railroad rates will be made plain when the grain rates suspended by the Interstate Commerce Commission are investigated as to their reasonableness, during the coming summer. The administration has not committed itself in advance and is in a position to treat this important matter in a purely disinterested manner.

The record of the arbitration committee of the Illinois Grain Dealers' Association in settling 400 cases in one year at a total cost of \$15, without a single case having been appealed, shows that arbitration is a success in the grain trade. That it is better to arbitrate than to go to law is proved by the fact that this committee has disposed of 3,000 disputes in seven years, about 60 per cent being settled without getting as far as the arbitration board.

Grain exporters at Baltimore are pleased with the announcement that the North German Lloyd Company will build larger ships for the service between that port and Bremen. There has been more or less complaint regarding the lack of vessel room at Baltimore for grain during the export season and exporters have held that the grain business of the port was being seriously handicapped on this account. It is hoped that the good example of the North German Lloyd people will awaken other steamship agents and owners to the needs of the city.

Forecasters are finding it unusually difficult this spring to make estimates on the probable course of the markets. Following nine months of exceptional demand from Europe for wheat, came a government report on April 8 of unusual bearish significance, which with ideal conditions in winter wheat states still prevailing and a liberal visible supply leaves little to create a sentiment for either much higher or lower prices. Both April and May are usually months of advances in corn, but the trade is confronted by unusually large March reserves, and oats shares with corn the same general characteristics.

In a recent communication to the Saskatoon (Sask.) Board of Trade a prominent Minneapolis elevator company called attention to one feature of the Canadian grain situation that has mitigated against the establishment of elevators in Canada by American concerns. The Minneapolis company, it is inferred, contemplates establishing a mixing and cleaning elevator at Saskatoon but hesitates because of some phases of the Dominion grain act. In particular, the company expresses wonder that some movement has not been started to amend that portion of the act governing car distribution. The rule that an elevator agent can place an order for but one car at a time and can receive cars only on the same basis as an indi-

vidual shipper is pointed out as a serious obstacle to the rapid handling of grain.

So much attention has been devoted to the improvement of corn, oats and wheat that the possibility of breeding up the hay crop of the country has been overlooked by many people. The agricultural experiment station at Cornell has during the past ten years developed a variety of timothy that is reported to yield over 40 per cent more hay than ordinary timothy under identical conditions of growth. Here is a line of work that merits the attention of agricultural experts everywhere.

Those who are determined to "reform" the grain trade of Minneapolis are greatly concerned over the fact that elevators are able to utilize No Grade wheat by mixing it with No. 1 and obtain a higher grade on out inspection. Of course, they do not take into account the fact that it would be impossible to find a market for much of the low grade grain without cleaning and mixing, and that the mixing houses frequently pay a premium for No. 1 for the purpose of bringing up the quality of otherwise unsalable stuff.

Prof. L. L. Corbett, horticulturist of the United States Department of Agriculture, is credited with having criticised the statistical bureau of the department for what he considers an error in figuring farm wealth. He has found that "the department records the corn, wheat and hay the farmer produces, as well as the cattle, hogs and other animals he raises, never stopping to think that the animals are fed on the crops." He neglects, however, to explain how it would be possible to estimate farm wealth in any other way. He also fails to take into account the fact that grain is a part of the raw material in stock production and that its conversion into beef and pork gives it an added value it did not have as grain.

RIVAL INSPECTION DEPARTMENTS

One result of the recently concluded investigation at Minneapolis has been the passage by the Minnesota legislature of a bill divorcing the state board of grain appeals from the state railroad and warehouse commission. The measure was introduced by Representatives Bendixen and Schwartz, and after a stormy debate on the floor of the house was passed by a vote of 63 to 28.

The fathers of the bill were members of the legislative investigating committee and professed to have found sufficient reasons for separating the two departments in facts developed by the recent hearings. In this they were not sustained by the other members of the committee and the fight that preceded the passage of the bill was between these two factions.

The measure increases the power of the appeals board by permitting that body to hire its own samplers and make such expenditures as it deems necessary, the funds coming out of the railroad and warehouse commission's appropriation. It was objected to because it practically creates two rival inspection departments and will undoubtedly lead to a conflict of authority. With one body making inspections and another one, probably antagonistic, passing

on appeals, the situation is liable to become complicated. There is small chance, however, of the bill passing the Senate.

ENDORSE THIS BILL

While it is impossible to estimate the amount of grain that is stolen annually as the result of the practice of permitting the sweeping of grain cars in terminal markets, every one connected with the grain trade knows that it is large enough to be a serious tax on the business. Occasionally the police arrest a grain thief and he is fined, but as a general thing this sort of pilfering goes on without interruption, because permission to sweep empty cars is an effectual cloak under which to hide stealing from loaded grain cars.

There is, however, a determined effort being made to put a stop to the stealing of grain in Illinois, and to this end a bill has been introduced in the Illinois Assembly which make it a misdemeanor, subject to fine and imprisonment, for anyone except the lawful owner or duly authorized agent to sweep cars which have been loaded with grain or flax seed.

This bill strikes at the root of the evil and should have the endorsement of every grain dealer in the state. When the grain thief is barred from railroad yards and can no longer pursue his calling under the guise of sweeping empty cars, this form of thieving, small in individual cases, perhaps, but large in the aggregate, will disappear. The measure is known as House Bill No. 277, and the way to insure its passage is for every grain man in the state to write the representatives and senator from his district and ask them to support the bill.

The Tri-State Grain Dealers' and Producers' Association actively opposed the bill recently before the Ohio Senate providing for the creation of an agricultural commission of four members, at a salary of \$5,000 each, three to be appointed by the governor and the fourth to be appointed by the trustees of the Ohio State University, to succeed and be possessed of the rights, authority and power now exercised by the state board of agriculture, the board of live stock commissioners, the board of control of the Wooster experiment station, the state dairy and food commissioner, the commissioner of fish and game, the state board of veterinary examiners and the state board of pharmacy. The bill also provides that the agricultural commission shall have full control and direction of the agricultural extension department of the Ohio State University. The measure has the endorsement of Governor Cox, but its opponents contend that the substitution of a high salaried commission for non-salaried boards is not economy, and that the commission plan of administration is not adapted to agricultural affairs. Many other objections to the plan are urged, chief of which is that such a commission is liable to be influenced too greatly by politics. Supporters of the measure contend that the consolidation of the several departments under the administration of an agricultural commission will insure economy and efficiency by preventing the overlapping of department work and expense.

[Special Correspondence.] PHILADELPHIA NEWS

BY E. R. SIEWERS.

Grain and produce men in Philadelphia are up in arms against the passage of a bill now pending in the Pennsylvania Legislature, which would compel commission merchants to furnish a bond for \$500 and pay a special license fee for handling agricultural products on commission. The Commercial Exchange met recently and denounced the bill as class legislation. L. G. Graff, James L. King and William A. Huey, representing the grain, feed and hay interests, were appointed a committee to go to Harrisburg and protest against the passage of the measure.

The Commercial Exchange bases its opposition on the ground that the bill singles out special interests and places an unwarranted hardship on its members. The bill was drawn as a protection to the farmers, but it is thought that the farmers have ample protection under the Factor Law. Under the latter law it is a misdemeanor, punishable by imprisonment, for a person to fail to give full accounting for goods received on consignment, whether it be farm products or general merchandise. The bill now pending simply places an additional burden on a class of business men which can ill afford the expense.

A committee from the Produce Exchange, who went to Harrisburg recently to have the enactment sidetracked, it is reported were turned down in an unceremonious manner and were practically refused a hearing. The Commercial Exchange proposes at once to take action in this matter and every proper argument, with organization influence is to be brought to bear to at least have its membership exempted by means of amendment to the act. The rules of the Exchange are very severe on all members who fail to keep their business obligations and contracts, and the criminal laws of Pennsylvania can be enforced in cases of dishonest and defaulting Commission men and others. As it is all the Commission men both in and out of the Exchange intend to fight the passage of this law with all their might and main and what the outcome will be, just at this time is difficult to predict, though it is believed that if this measure should become a law, besides working the most grievous injustice to the grain, feed, flour and hay and straw commission men, it would eventually drive a number of firms out of business entirely.

* * *

The new Girard Point Grain Elevator is to be supplied with a thermometer system similar to that in use by the Central Elevator Company of Baltimore.

* * *

It has been decided by city councils to carry out the plans for the building of two municipal double decked piers, each 180 feet long, in the lower end of the city at a cost of \$1,200,000, and the transformation of nearly a quarter mile of what is now the most dilapidated and useless portion of the Delaware River front. Between the piers to the north and south are to be docks 200 feet wide, and the Philadelphia and Reading Railway and the Pennsylvania Railroad Company will expend large sums of money in the neighborhood for similar improvements.

* * *

The North American Export Grain Association of which Frank Evans Marshall is secretary and treasurer, and which within a very short time has become one of the most prominent and influential trade bodies in the country, has unanimously approved the following rule:

"On and after May 1, 1913, all sales of grain to the United Kingdom by members of the North American Export Grain Association, shall be for payment by cash in London, in exchange for shipping documents."

Correspondents in the United Kingdom have been notified by the members of the rule. The Association includes in its membership, every important commercial organization in the United States and Canada, having grain export interests. Thirty-seven of the leading exporters of North America (compris-

ing practically the entire export grain trade, exclusive of the Pacific Coast) as subscribing members are for the first time united for mutual protection. Such a representation is surely entitled to some voice regarding terms of sale, and that their concerted efforts must accomplish the desired results is firmly believed. Among the membership is the New York Produce Exchange; Montreal Corn Exchange Association; Commercial Exchange of Philadelphia; Merchants' Exchange of St. Louis; Kansas City Board of Trade; Baltimore Chamber of Commerce; Chicago Board of Trade; Boston Chamber of Commerce; Duluth Board of Trade; Toronto Board of Trade, and New Orleans Board of Trade. It looks as if the grain exporters are awakening to an up-to-date and prompt system of transacting their future business, as it has been frequently said that this great continent feeds the world.

* * *

The Commercial Exchange members are repenting their mistaken judgment in selling their title and corporate rights to the name "Chamber of Commerce" to the Trades League some years ago, for it looks now as if the newly christened Chamber of Commerce will be absorbed by the Board of Trade.

PROPOSED PUBLIC UTILITIES COMMISSION

The abolishment of the State Railroad and Warehouse Commission and the merging of this department with the proposed Public Utilities Commission is one of the provisions of the public utilities bill which will be introduced to both houses of the Illinois State Legislature on April 17. The bill, in its present form, provides for a commission of five members at an annual salary of \$10,000 who shall have general supervision over the public utilities of the state, including the rates charged the public.

PITTSBURGH AND THE FLOODS

We are indebted to H. G. Morgan of H. G. Morgan & Co., Pittsburgh, Pa., for the following account of conditions at that market. He writes April 2: "Reports from Pittsburgh indicate that that city was not as badly flooded as the papers reported, and what really happened was that the railroads were crippled by washouts along all the the main routes. The New York Central could not get into Cleveland, the Baltimore and Ohio could not get into Pittsburgh from the West, and the Pennsylvania Lines were washed out between Lucas and Mansfield on the Fort Wayne Route, and at Dennison and other points on the Pan Handle Route. The Fort Wayne Route was able to do business by April 5, and the Pan Handle Route expected to be running as we go to press. Strange to say, grain did not disappear entirely from the markets, and elevators seemingly held enough to tide over until other supplies could be obtained. Prices were somewhat inflated by reason of the non-arrival of grain. No. 3 yellow shelled corn sold at 54 cents March 24, and at 58 cents April 2; Standard oats sold at 36½ cents March 24, and at 40 cents March 31. Pittsburgh is not a wheat market, and, while considerable rye is used there, it is handled on a brokerage basis. Ear corn is a specialty of Pittsburgh on account of the mines, and is in permanent demand on the Pittsburgh market. Strange to say, the best timothy hay was very scarce during the flood, and arrivals are very light at this writing."

The secret service department of the Grand Trunk Pacific Railway is working up clues in connection with the theft of five cars of wheat and one car of oats from Barr, Man. So far 200 bushels only of the stolen grain have been located.

Exports of Kaffir corn from Galveston between September 1, 1912, and March 1, 1913, were 129,000 bushels. From March 1 to March 15 there was loaded for export 102,567 bushels, making a total of 231,567 bushels. The Kaffir came to Galveston from Texas, Oklahoma, Kansas and southern Missouri, and was shipped principally to Liverpool and Manchester.

EDWARD ANDREW
Chicago, Ill.

NEWS OF THE TERMINAL MARKETS

E. L. SOUTHWORTH
Toledo, Ohio.

OMAHA GRAIN EXCHANGE SHOWS LIBERALITY

Omaha Grain Exchange members raised among themselves upwards of \$4,410 for the relief fund to aid sufferers from the recent storm which caused such great destruction to life and property in Omaha and surrounding territory. The amount was turned over to J. M. Holmquist, president of the Exchange, and by him given to the treasurer of the Central Relief Committee. There were about fifty contributing firms.

WILL TOLEDO WIN?

Ohio grain dealers have been invited by the Toledo Produce Exchange to hold their annual meeting in Toledo. We quote from Zahm's Red Letter: "It is up to the governing board of the association whether the meeting will be held at Cedar Point, Cincinnati, Columbus or Toledo. If Toledo should be favored, the members of this Exchange and citizens in general will endeavor to make it pleasant for those who come."

CONDITIONS AT INDIANAPOLIS

Bert A. Boyd of Indianapolis writes at the close of March: "For the past week business here has been practically suspended on account of the high water. No markets, no receipts. There has been very little damage done, however, to elevator property and I am advised that practically all of the grain in the various yards here was not damaged in the least. As Indianapolis is the 'natural route' for grain shipments from western Indiana and Illinois, the other markets will no doubt feel the effects of our disaster."

WRITE "INSPECTION PERMITTED"

Shippers and members of the Pittsburgh Hay and Grain Exchange are urged to label their shipments "Inspection Permitted," and grain merchants of that market are advising their customers as follows: "Considerable inconvenience and delay is being experienced by the failure of shippers and agents to note on bills of lading, manifests and card way bills 'Inspection Permitted.' Railroads are enforcing the new order bill of lading clause. By giving this your attention, delay and demurrage will be prevented."

CHANGE IN RULES

The Kansas City Board of Trade, late in March, adopted an amendment to the rules governing deliveries of grain on contracts for future delivery. The effect of the new rule is to make deliveries of grain of contract grade in cars on track within the switching limits of Kansas City, regular business on the last six business days of any delivery month. The adoption of the rule automatically repealed the rule adopted last August permitting deliveries in cars on track only when an emergency exists, the directors having the power to declare an emergency.

BALTIMORE'S EXPORT TRADE

Notwithstanding the recent published accounts of a shortage of grain ships at Baltimore, that port seems to have done a very flourishing export business during the six months which ended March 31. There were 111 full cargoes of grain shipped to foreign ports during this period, making a total of 37,128,685 bushels. There was not one full cargo sent to Liverpool, and to London only three full cargoes were shipped. Altogether sixteen cargoes went to ports in Grain Britain. Rotterdam received the greatest proportion of all the grain shipped, but

most of it was for transshipment into Germany. German, Danish, Norwegian, French, Portuguese and Italian ports figured largely.

NEW OFFICERS OF MILWAUKEE CHAMBER OF COMMERCE

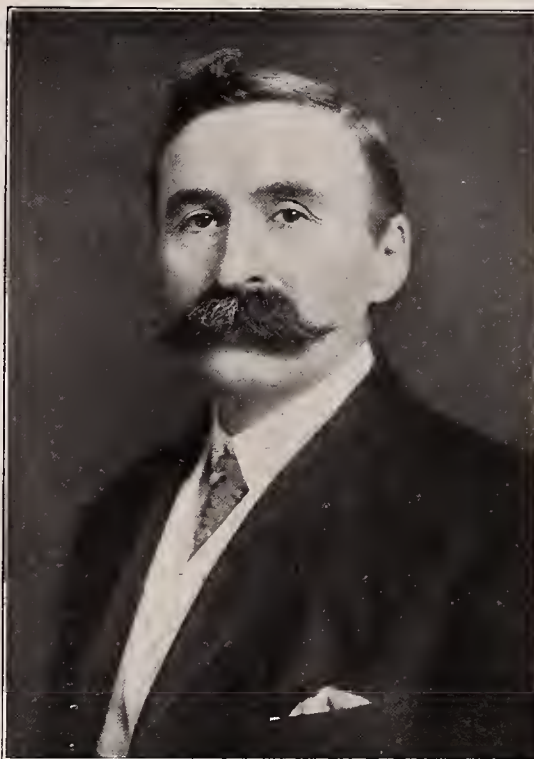
The election of officers and directors of the Milwaukee Chamber of Commerce took place April 7. It resulted as follows: President, P. P. Donahue; first vice president, A. K. Taylor; second vice president, James A. Mander; secretary-treasurer, H. A. Plumb.

Board of Directors, H. H. Peterson, Frank J. Phelan, Thomas Corcoran.

Board of Appeals, one year, J. J. Crandall, S. G. Courteen; two years, W. A. Hottensen, J. V. Lauer and E. J. Furlong.

P. P. DONAHUE

Those who know P. P. Donahue of Milwaukee, and their number is legion, feel sure that the Chamber of Commerce could not have found a bet-

PRESIDENT P. P. DONAHUE
Milwaukee Chamber of Commerce.

ter man for the presidency of that body. Identified as he has been with the grain interests of Milwaukee for the past eighteen years, his knowledge, experience and good judgment have broadened and developed to such an extent that he has not only formed acquaintanceships of lasting value, but has attracted to himself the general respect and admiration of those with whom he has come in contact.

Mr. Donahue commenced his career as a miller at Troy, Wis., and followed the milling industry up to about eighteen years ago, when he moved to Milwaukee, and became associated with the firm of Charles R. Lull & Co. In 1907 he branched off in business for himself, dealing in grain, flour and feed. He soon built up a very remunerative business and in 1910 he was one of the incorporators of the Donahue-Stratton Company. This firm has just recently leased for a term of years the big Elevator "A," belonging to the Chicago, Milwaukee & St. Paul Railway at Milwaukee, and took possession on April 1.

For three years, Mr. Donahue served as a director of the Milwaukee Chamber of Commerce and

for two years he was second vice president. Now that the body has elected him to the highest honor he will continue to exert the same well known energy and ability in directing its affairs that he formerly put forth when he served in the ranks. He will be aided in his task by a splendid set of officers and directors.

AND MAY IS RIGHT HERE, TOO

"Our Boy Solomon" of Toledo, Ohio said recently: "Chicago May wheat was several cents above dollar year ago. It sold above dollar all March. That was only the sixth time above dollar in March for twenty-three years. Four times of those six have occurred during past six years. May wheat has nearly always passed the dollar mark during May for several years. Lowest for May wheat in late years was 74½ cents in March six years ago. It has only sold below 90 cents twice since. Highest in late years \$1.35¼ four years ago this coming May. Toledo reached \$1.54 same time."

"DE MORTUIS NIL NISI BONUM"

If, as Pope stated, the "proper study of mankind is man," then a little turning of the light on man's work and deeds, after his passing, is probably of benefit. The following paragraph appeared in the market letter of C. A. King & Co. of Toledo, April 2:

"J. P. Morgan was a great man. He was a giant, mentally, physically and financially. He was a bull on the United States. He said any bear on the future of our country would go broke. He liked to develop weak properties and see them grow strong. He took a railroad near here and sold it to another, the price to be determined five years hence. He did big things. He always worked against panics and made others come to the rescue. He liked the game of making money but he played it with the cards on the table. He was not a mere cash register, like some. He enjoyed making others happy. He was a real philanthropist. He liked travel, art and the theater. Some assail him because he watered stocks. Government permits it. Wall Street has done it for years. Now every burg has its amateur promoters and many of them resort to questionable methods. Morgan always tried to make the water good. Look at the Steel Trust. Morgan's death weakens Wall Street. There are other big men there, but he was the financial king of the present age."

CHANGES IN MEMBERSHIP

Baltimore.—William G. Smiley, Division Freight Agent of the Western Maryland Railroad was admitted to membership in the Chamber of Commerce and certificate of John T. Hendricks was transferred, according to a report from Secretary James B. Hessong.

Chicago.—New members of the Board of Trade admitted during March were Thomas V. Brennan, Frank W. Annin, Ira Ulfers, Melvin C. Townsend and Ray W. Searle. Memberships transferred were those of Frederick Cowin, Estate of W. H. Morehouse, Daniel G. Brown, Estate of James D. Keenan and Estate of R. F. C. Lurham. Reported by Secretary J. C. F. Merrill.

Kansas City.—A report from Secretary F. D. Bigelow of the Board of Trade says that Arthur Freeman was admitted to membership on transfer from J. A. Brubaker, and H. H. Steele on transfer from John R. Neil.

Milwaukee.—New members elected to the Chamber of Commerce were William J. Greene, Milwaukee; C. C. Ladd, Osceola Mill and Elevator Com-

pany, Osceola; R. A. Ritchie, Northern Elevator Company, Manitowoc. Transfers were granted to F. Steinmueller, Milwaukee; Edward L. Glaser, Chicago; Willis Councilman, Chicago. Reported by Secretary H. A. Plumb.

St. Louis.—At a meeting of the Board of Directors of the Merchants' Exchange, held on April 8, the following new members were received: W. B. Swygard; R. L. Dore, Asst. Gen. Frt. Agt., T., St. L. & W.; J. F. Curdie, Com. Agt. Michigan Central R. R.; O. J. Wasserfall, of Tate, Logan & Co. Memberships transferred—S. S. Carlisle, Adiel Sherwood, F. D. Powell and Simeon B. Chapin. Reported by Secretary Eugene Smith.

M. L. VEHON

The writer of the biography of M. L. Vehon, head of the grain firm of M. L. Vehon & Co., with offices in the Insurance Exchange Building, Chicago, if he were quite truthful, would state that one of his sub-



M. L. VEHON

ject's chief characteristics was a hopeful optimism. There is not a doubt but that M. L. Vehon is a disciple of the little god Billiken. No one could remain in his presence for five minutes without being sure of this fact, and we are quite certain that even "Mike" himself would say, in response to our allegation, "You don't have to prove it, I admit it."

As regards the business of M. L. Vehon & Co., it has been established only about two years, but has always been in a satisfactory state of growth. The company is careful, conservative and conscientious, and is looking after the interests of its patrons all the time. To sum up this short sketch, M. L. Vehon & Co., although recent, is one of the thriving Chicago grain firms.

TERMINAL NOTES

H. I. Baldwin & Co. of Decatur, Ill., have removed their offices into new and larger quarters at 108 Williams Street.

James Hancock, of the Hancock Grain Co., of Philadelphia, Pa., recently returned from a six months' trip abroad.

Members of the Kansas City Board of Trade raised \$1,030 from among their membership to aid the destitute in the recent western disasters.

George E. Marcey, president of the Armour Grain Co., Chicago, returned early in April from California, where he spent a part of the winter months.

H. F. Denig, traffic manager of the Pittsburgh Hay and Grain Exchange, represented the Exchange early in April on a business trip to Chicago, Indianapolis and Peoria.

Edward Andrew, president of the Board of Trade of the city of Chicago, appointed the following committee to raise funds for the storm and flood sufferers in central territory: H. J. Patten, chairman;

A. J. White, Edw. S. Skillen, T. E. Cunningham, Lowell Hoit. A considerable sum was raised.

Charles G. Castle of Winnipeg, Man., has resigned the office of Dominion Grain and Warehouse Commissioner after thirteen years of service. It is stated he will engage in farming.

The Donahue-Stratton Elevator Company of Milwaukee, Wis., has been incorporated with a capital stock of \$50,000. The incorporators are: P. P. Donahue, H. M. Stratton and P. B. Stratton.

Edward H. Brown of Evanston, Ill., who has been identified with the grain trade of Chicago for many years past has sold his membership on the Chicago Board of Trade and removed to Florida.

J. L. Tracy, formerly identified with the grain business of Minneapolis, Minn., and who has spent the past two years at Medford, Ore., returned recently to re-engage in the grain business at Minneapolis.

Finley, Barrell & Co., of Chicago, Ill., have given up their grain business at Buffalo N. Y. The office and business has been taken over by R. W. Searle, who has been the manager of the business for some time past.

Harris, Winthrop & Co. of Chicago and New York have admitted to the Chicago branch of the firm, Walter H. Wilson, former city comptroller. James O. Hinkly has withdrawn from the firm on account of ill health.

J. M. Van Nuys has left St. Louis, Mo., to return to Peoria, Ill., where he has established an office in the Chamber of Commerce Building and will buy grain on the Peoria board for the Pekin plant of the American Corn Products Company.

J. T. McLaughlin & Co. gave up their offices on the first floor of the Board of Trade Building, Chicago, Ill., on April 1, and removed to larger quarters in the New York Life Building at the corner of LaSalle and Monroe streets.

P. Arthur Richardson, grain merchant on the St. Louis Merchants' Exchange, was recently expelled from membership. The charges were that he had borrowed money on duplicate bills of lading for grain exported and other irregularities.

Senate Bill No. 126, an act introduced into the Illinois State Senate by Senator Albert C. Clark and whose purpose it is to legalize "Puts and Calls" on the Chicago Board of Trade passed on March 26 and will now be introduced into the House.

Caleb L. McKee & Co., a grain and stock brokerage firm with offices in the Hollenden Hotel, Cleveland, Ohio, announced on April 5 that they would thereafter discontinue their trading service in New York stocks and Chicago grain, confining their service to local stocks exclusively.

The Keusch & Schwartz Co., of New York City, has been incorporated to succeed B. F. Schwartz & Co., and Otto Keusch with Otto Keusch as president and B. F. Schwartz vice-president. The capital stock is \$100,000. The company will carry on a general commission business.

The growth of the business of J. P. Griffin & Co., grain merchants, with offices in the Board of Trade Building, Chicago, has become such that larger offices were found necessary and the first of the month they moved into more commodious quarters in the rooms just vacated by the transportation department.

The J. F. Costello Grain & Hay Company of Cincinnati, Ohio, was incorporated recently with a capital stock of \$20,000. The incorporators are Joseph F. Costello, John De Molet, William C. Straehley, W. H. McQuillan and F. J. Currus. Mr. Costello was formerly with the Union Grain & Hay Company, while Mr. De Molet is late of Allen & Munson.

Mark Bates, until recently president of the grain firm of W. G. Press & Co. of Chicago, was expelled by the directors of the Board of Trade from membership in that body late in March. The charge of which Mr. Bates was found guilty was that of "cross trading." The charge was of a technical character, but the rule governing this kind of trading is strin-

gent and the directors said there was no alternative but to expel him.

At the annual meeting of the Fort Worth Grain and Cotton Exchange, held April 3, T. G. Moore was elected president; Paul Crusemann, vice president; W. W. Manning, treasurer, and Emmett B. Wooten, secretary.

More than \$1,000 was subscribed in one hour on a recent morning in the Toledo Produce Exchange for the aid of Ohio flood sufferers. Among the larger contributors were: C. A. King & Co., J. F. Zahm & Co., John Wickenhiser & Co., H. D. Raddatz & Co., Southworth & Co., The Paddock Hodge Co., North Western Elevator & Mill Co., National Milling Co., Harter Milling Co., Toledo Grain & Milling Co.

Hereafter the manufacturers and disseminators of fake statements of grain and flour for export, misleading statements of crop reports and unauthenticated information of any character on the Chicago Board of Trade are slated to get into trouble and that speedily. Chairman B. S. Wilson of the market report committee and H. C. Avery have this matter in charge and design to make it impossible for any misleading news to be circulated.

NEW OFFICERS OF CLEVELAND CHAMBER OF COMMERCE

At a meeting of the Cleveland Chamber of Commerce held on April 7, Warren S. Hayden, formerly first vice-president of the body, was elected president, and Munson Havens was re-elected secretary for the coming year. The other officers elected were Frederick A. Henry, first vice-president; Morris A. Black, second vice-president; George A. Coulton, treasurer.

GEORGE N. DAVIES

The newly-appointed terminal elevator inspector of the Minneapolis Chamber of Commerce, George N. Davies, whose picture we reproduce, has been in the practical end of the grain business for more than fifteen years. Born in Indiana on February 5, 1881, he lived in that state but nine years, after



GEORGE N. DAVIES

Terminal Elevator Inspector, Minneapolis.

which he moved to Minneapolis where he has been ever since.

For a long time Mr. Davies was employed as a grain sampler and later held a position for three years with the Minneapolis laboratory of the U. S. Department of Agriculture, testing and analyzing wheat and grain of all kinds. In 1910 he was made assistant superintendent of the large St. Anthony elevator, and on February 10, 1910, was appointed to succeed the late I. R. Brown as terminal elevator inspector. Mr. Davies measures up well to the requirements of his new position and his many friends both in Minneapolis and throughout the grain trade

in general, believe that he will be eminently successful.

RECEIPTS AND SHIPMENTS

Following are the receipts and shipments of grain, grain products, hay and seed at the leading receiving and shipping points in the United States for the month of March, 1913:

BALTIMORE.—Reported by James B. Hessong, Secretary of the Chamber of Commerce.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	343,508	128,661	373,078
Corn, bu.....	5,194,286	984,689	4,457,368
Oats, bu.....	385,742	270,909	106,970
Barley, bu.....	1,350	1,247	.....
Rye, bu.....	157,590	52,167	14,163
Tim. seed, bu.....	878	667	.....
Clover seed, bu.....	1,167	3,290	.....
Hay, tons.....	6,659	7,249	1,376
Flour, bbls.....	133,710	141,836	82,945

CHICAGO.—Reported by J. C. F. Merrill, Secretary of the Board of Trade.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	2,418,000	1,421,300	3,068,000
Corn, bu.....	11,016,000	10,112,950	8,985,000
Oats, bu.....	8,305,000	7,442,400	8,201,000
Barley, bu.....	2,996,000	1,114,500	825,000
Rye, bu.....	289,000	144,000	270,000
Tim. seed, lbs.	2,831,000	868,000	4,426,000
Clover seed, lbs.	901,000	257,100	1,525,000
Other grass seed, lbs.	762,000	1,142,700	3,180,000
Flax seed, bu.....	98,000	199,200	26,000
Broom corn, lbs.	1,747,000	531,300	1,584,000
Hay, tons.....	20,852	36,314	2,240
Flour, bbls.....	784,000	612,743	402,000

CINCINNATI.—Reported by W. C. Culkins, Superintendent of the Chamber of Commerce.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	202,303	175,046	136,906
Corn, bu.....	606,184	735,100	583,754
Oats, bu.....	766,149	493,024	892,670
Barley, bu.....	61,406	64,484	23,275
Rye, bu.....	32,014	54,903	30,129
Tim. seed, 100-lb. bags.....	3,770	1,293	6,236
Clover seed, 100-lb. bags.....	5,662	8,595	8,467
Other grass seed, 100-lb. bags.....	12,175	15,151	10,948
Flax seed, 100-lb. bags.....	4	90	1
Broom corn, lbs.	2,585	26,600	15,321
Hay, tons.....	15,869	12,351	16,969
Flour, bbls.....	116,896	140,496	94,674

DETROIT.—Reported by M. S. Donovan, Secretary of the Board of Trade.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	155,000	70,384	166,000
Corn, bu.....	204,000	257,537	204,000
Oats, bu.....	151,000	188,206	25,700
Barley, bu.....	.....	32,309	.....
Rye, bu.....	7,000	5,877	8,600
Flour, bbls.....	30,000	22,562	41,000

DULUTH.—Reported by Charles F. MacDonald, Secretary of the Board of Trade.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	3,749,927	6,758,281	761,111
Corn, bu.....	9,077	.....	1,846,362
Oats, bu.....	727,178	2,564,416	268,158
Barley, bu.....	773,123	134,924	588,678
Rye, bu.....	41,064	11,360	775,218
Flax seed, bu.....	1,615,975	275,544	80,811
Flour, bbls.....	175,000	52,000	237,605

GALVESTON.—Reported by John H. Upschulte, Inspector of the Cotton Exchange & Board of Trade.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	738,000	96,000	843,560
Corn, bu.....	38,000	25,000	45,892
Oats, bu.....	5,000	.....	.....
Kaffir corn, bu.....	105,000	.....	146,079
Rye, bu.....	14,000	.....	.....
Flour, bbls.....	.....	.....	30,605

KANSAS CITY.—Reported by E. D. Bigelow, Secretary of the Board of Trade.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	891,600	357,600	1,572,000
Corn, bu.....	893,750	1,411,250	1,334,400
Oats, bu.....	470,700	510,000	661,250
Barley, bu.....	30,800	21,000	518,500
Rye, bu.....	4,400	2,200	586,500
Kaffir corn, bu.....	111,100	191,400	2,800
Mill feed and bran, tons.....	480	360	7,000
Hay, tons.....	25,512	24,792	1,100
Flour, bbls.....	19,750	20,250	1,100

MILWAUKEE.—Reported by H. A. Plumb, Secretary of the Chamber of Commerce.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	602,600	508,100	361,223
Corn, bu.....	947,540	574,680	103,500
Oats, bu.....	925,200	903,600	821,290
Barley, bu.....	1,479,400	708,500	889,364
Rye, bu.....	233,200	203,500	619,423
Tim. seed, lbs.	125,310	254,775	252,855
Clover seed, lbs.	216,705	290,590	165,353
Flax seed, bu.....	51,600	.....	60,945
Hay, tons.....	3,756	3,766	74,395
Flour, bbls.....	136,250	57,340	5,500

NEW YORK.—Reported by H. Heinzer, Statistician of the Produce Exchange.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	2,347,200	1,834,800	2,522,782
Corn, bu.....	2,173,375	101,375	1,290,859
Oats, bu.....	1,610,400	1,550,925	1,194,943
Barley, bu.....	580,125	151,336	762,418
Rye, bu.....	77,675	25,300	213,236
Tim. seed, bags.....	3,866	3,231	64,188
Clover seed, bags.....	548,600	279,238	16,923
Flax seed, bu.....	27,552	18,975	.....
Hay, tons.....	751,447	713,887	.....
Flour, bbls.....	.....	.....	.....

* Bales.

PEORIA.—Reported by John R. Lofgren, Secretary of the Board of Trade.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	204,000	82,800	185,000
Corn, bu.....	1,159,167	1,049,695	75,127
Oats, bu.....	610,364	614,513	514,208
Barley, bu.....	340,600	140,132	800,802
Rye, bu.....	85,200	8,400	76,889
Mill feed, tons.....	8,226	8,776	6,400
Seeds, lbs.....	510,000	120,000	9,189
Broom corn, lbs.	120,000	30,000	30,000
Hay, tons.....	3,175	2,500	90,000
Flour, bbls.....	204,000	213,500	772

PHILADELPHIA.—Reported by Frank E. Marshall, Secretary of the Commercial Exchange.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	73,570	397,872	517,301
Corn, bu.....	619,358	176,940	248,542
Oats, bu.....	680,434	665,147	342,847
Barley, bu.....	6,505	.....	211,971
Rye, bu.....	.....	3,200	.....
Flax seed, bu.....	18,400	12,000	.....
Hay, tons.....	6,674	7,623	.....
Flour, bbls.....	179,383	181,305	.....

OMAHA.—Reported by F. P. Manchester, Secretary of the Omaha Grain Exchange.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	684,000	518,400	796,800
Corn, bu.....	1,272,000	1,450,800	448,000
Oats, bu.....	1,060,800	833,000	1,513,600
Barley, bu.....	44,800	81,200	1,776,000
Rye, bu.....	6,600	.....	924,000
Tim. seed, bags.....	.....	.....	15,000
Clover seed, bags.....	.....	.....	.....
Alsike seed, bags.....	.....	.....	.....

MINNEAPOLIS.—Reported by H. W. Moore, Statistician of the Chamber of Commerce.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	10,014,140	6,894,160	2,856,050
Corn, bu.....	411,420	258,030	2,045,720
Oats, bu.....	1,335,880	973,800	292,110
Barley, bu.....	2,614,390	548,040	423,780
Rye, bu.....	280,870	124,540	1,070,510
Flax seed, bu.....	1,056,760	397,460	1,578,680
Hay, tons.....	3,040	8,800	2,265,800
Flour, bbls.....	75,794	40,740	779,950

SAN FRANCISCO.—Reported by William B. Downes, Statistician of the Chamber of Commerce.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	45,131,400	.....	8,400
Corn, lbs.....	951,700	.....	61,000
Oats, lbs.....	2,874,200	.....	20,000
Barley, lbs.....	14,226,700	.....	2,247,500
Rye, lbs.....	102,500	.....	.....
Hay, tons.....	855,800	.....	49,000
Flour, bbls.....	11,398,600	.....	3,621,600

TOLEDO.—Reported by Archibald Gassaway, Secretary of the Produce Exchange.

Receipts		Shipments	
Articles.	1913.	1912.	1913.
Wheat, bu.....	32,000	194,000	169,000
Corn, bu.....	482,400	581,600	123,600
Oats, bu.....	323,200	109,500	265,500
Rye, bu.....	3,000	10,000	240,400
Tim. seed, bags.....	3,576	2,140	308,900
Clover seed, bags.....	5,297	6,570	223,400
Alsike seed, bags.....	1,132	600	1,300

TRADE NOTES

The Newell Construction Co. of Cedar Rapids, Iowa, has been taken over by Chas. E. Newell, who is now sole owner of the business.

The Burrell Engineering & Construction Company of Chicago, Ill., have established a branch office in the Castle Hall Building, Indianapolis, Ind. It is in charge of C. F. Mustard, a capable machinery man and grain elevator builder, who will have charge of the company's interests in Indiana and Ohio.

Sprout, Waldron & Co. of Muncy, Pa., have established a new western branch office at 714 Fifth avenue, Great Falls, Mont. This gives the company three western branches, the remaining two being at No. 1102 Farnum street, Omaha, Neb., and 613 McKay Building, Portland, Ore. The Chicago office remains at No. 9 South Clinton street in charge of Geo. J. Noth, who reports a good outlook and demand for the well known "Monarch" machines in his territory.

A. A. Croft, central representative of Nordyke & Marmon Company of Indianapolis, Ind., with recent headquarters at Toledo, Ohio, is now located at Lexington, Ohio, from which point he will take care of the business of this well known grain elevator machinery and mill building firm in the future. Mr. Croft is well known in central territory and will find it more convenient in his new headquarters to look after the machinery needs of his patrons than from Toledo.

The largest and most complete production catalogue ever issued by the Joseph Dixon Crucible Company, of Jersey City, N. J., is now being mailed to the thousands of manufacturers, jobbers, purchasing agents and others interested in graphite, crucibles, paint, lubricants, pencils and other productions of this company. Though over one hundred pages of type and illustrations are used, this catalogue does not attempt to carry a full description of the entire Dixon line and only a few of the many hundreds of Dixon's American Graphite Pencils are listed. A peculiar value is attached to this production catalogue, inasmuch as it serves to acquaint those who are already users of one form of graphite with its many other forms and uses. If you are particularly interested in graphite products you are invited to send for a copy of this catalogue. vited to send for a copy of this catalogue.

Though the recent flood that swept through Ohio and Indiana partially submerged the Nordyke & Marmon Company's plant at Indianapolis, no damage was done to their buildings. Warning of impending breaks in the White River levee was given

hours before they occurred and ample preparations were made. Most of the finished product, materials, patterns, all drawings, etc., were placed out of reach of possible harm. The company's loss is therefore comparatively light. No loss of life occurred to employees, though a number living in the flooded district lost much of their personal property. The officers and a number of departments resumed their regular working schedule Monday, March 31, and the complete plant is being rapidly put into its usual highly efficient working order. Shipments will be made with the usual N. & M. Co. promptness by the time the railroads are in condition to handle them.

Somers, Jones & Co., commission merchants of Chicago, look after the interests of their patrons very closely in that market. They had the following to say in a recent market letter on the subject of scales, which they believe should receive greater attention by shippers generally: "We have recently had a number of cases of loss of grain in leaky cars, which were not weighed at point of shipment so that the loss could be proven. In several cases the leaks were bad ones and the losses without doubt heavy enough to have paid for a large part of the cost of installation of a good automatic scale. Many country shippers are putting in automatic scales, of which there are several good makes. They are beginning to attach more importance to the weighing of their shipments, and we suggest taking up the matter of automatic scales with several of the more reliable makers, with the idea of adding weighing facilities where not already existing."

James Stewart & Co., grain elevator builders, Chicago, will remove their general offices on May 1 from the old location in the Fisher Building to the new Westminster Building at the corner of Monroe and Dearborn streets. In their new offices, their general contracting business and grain elevator department will be on the same floor with only a hallway between. At the present time the company has over 10,000,000 bushels' storage capacity in course of construction, involving over \$5,000,000. Some of the larger of these elevators include the Canadian Pacific Railroad Elevator at Fort William, Ont., with capacity of 4,000,000 bushels; the Pennsylvania Railway Elevator at Philadelphia, Pa., with capacity of 1,500,000 bushels; Chicago Great Western Railway Elevator at Kansas City, Mo., with capacity of 700,000 bushels; Baltimore & Ohio Railroad Elevator on Calumet River, Chicago, capacity 1,000,000 bushels; Staley Manufacturing Company at Decatur, Ill., two elevators with combined capacity of 500,000 bushels.



ILLINOIS

A \$40,000 elevator is being planned for Mt. Carmel, Ill.

A farmers' elevator company may be formed at Roseville, Ill.

Rich and Blankenbaker will build an addition to their elevator at Ivesdale, Ill.

The Farmers' Grain Company of Henning, Ill., will install an automatic scale.

James Carmody, a grain dealer at Merna, Ill., plans the erection of an elevator.

The Bartlett Elevator at Monmouth, Ill., was recently purchased by F. & C. Smith.

The Cooksville Grain Company has discontinued the storage of grain at Cooksville, Ill.

An elevator will be erected at Windsor, Ill., to replace the house that recently burned.

R. H. Jones & Co. will erect a 25,000-bushel elevator at Lodge (R. F. D. from Monticello), Ill.

A 30,000-bushel elevator will be constructed at Amenia (R. F. D. from Cisco), Ill., by R. Alberton.

Louis Kuszmaul is working up interest in the formation of a farmers' elevator company at Cuba, Ill.

A motor will be installed in the elevator at New Lebanon, Ill., to displace the engine formerly used for power.

C. B. Munday & Co., recently purchased the elevator at Edgewood, Ill., formerly owned by J. M. Lieb & Son.

The Central Mill & Elevator Company of Bloomington, Ill., has increased its capital stock from \$25,000 to \$35,000.

It is reported that the Farmers' Elevator Company at Tampico, Ill., will either rebuild or remodel its elevator.

A new house will be erected at Weston, Ill., for Graves & Hurburgh to replace the elevator that was burned in October.

The Farmers' Elevator Company of Sandwich, Ill., has taken action to increase its capital stock from \$10,000 to \$20,000.

Arnold & Rapp have discontinued their grain business at Geneseo, Ill., and it is reported that the house will be leased by others.

J. H. Rosensteel has sold his elevator at Stockton, Ill., to Roland Coomber, of Freeport, Ill., and possession was given on April 1.

The stockholders of the Farmers' Elevator Company at Delavan, Ill., held their annual meeting on March 18, and a dividend of 10 per cent was declared.

The Dana Farmers' Elevator Company has been incorporated at Dana, Ill., with a capital stock of \$10,000. The incorporators are M. F. Bane, John B. Klendworth and George Klendworth.

The Mattoon Farmers' Grain Company of Mattoon, Ill., is considering the reconstruction of its elevator. The new house will be practically of the same construction as the one that burned last year.

The Jacksonville Farmers' Elevator Company has been incorporated at Jacksonville, Ill., with a capital stock of \$10,000. The incorporators are Ralph B. Reynolds, Stansfield Baldwin, W. L. Leach, J. M. Stewart and J. W. Hairgrove.

The two old elevators of James M. Green & Son at Wapella, Ill., have been razed and a modern 30,000-bushel house is being erected by the Decatur Construction Company of Decatur, Ill. It will be of crib construction and operated by electric power.

The old elevator at Bondville, Ill., owned by S. G. Crawford, is being torn down and a house of 25,000 bushels' capacity will be erected in its place. It will be equipped with the "Western" Line of machinery furnished by the Union Iron Works of Decatur, Ill. The contractor in charge of the work is W. H. Wenholz of Springfield, Ill.

The new 75,000-bushel elevator of the Central Illinois Grain Company at Springfield, Ill., is almost complete. It will be operated by two 20-horsepower and two 10-horsepower Fairbanks electric motors, and equipped with two 1,000-bushel hopper scales and the "Western" Line of machinery, including sheller and cleaner. The house has twenty-three bins, two unloading legs and two house legs. The construction work is being done by W. H. Wenholz

of Springfield, Ill. The addition of a 10,000-bushel feed and cereal mill is now under consideration.

Work on the 50,000-bushel elevator of the Chatham Farmers' Elevator Company at Chatham, Ill., has been started by W. H. Wenholz of Springfield, Ill., contractor. It will be equipped with the "Western" line of machinery furnished by the Union Iron Works of Decatur, Ill.

The A. E. Staley Manufacturing Company of Decatur, Ill., is planning the erection of a 500,000-bushel elevator. A new warehouse has been completed, the first story of which will be used for storage purposes and the second will be utilized as a dining room for the employees.

The elevator of the Mt. Pulaski Grain Company at Mt. Pulaski, Ill., is being remodeled by the Decatur Construction Company of Decatur, Ill., and when completed, will have a capacity of 80,000 bushels. It will be equipped with new machinery and will be operated by gas or electric power.

The farmers in the vicinity of Hawks' Crossing, six miles south of Springfield, Ill., are forming an elevator company, and a house will be constructed near the interurban tracks of the Illinois Traction System. The capital stock will probably be about \$5,000, and among the incorporators are W. H. Odiorne, Louis Ostermeier and Fred Ladage.

Work on the new elevator of the Central Illinois Grain Company has been started at Tallula, Ill., by W. H. Wenholz of Springfield, Ill. The house will have a capacity of 25,000 bushels of small grain and 15,000 bushels of ear corn. It will be equipped with an electric drive and machinery furnished by the Union Iron Works of Decatur, Ill.

A new 50,000-bushel plant will replace the old elevator of the Lacharite Grain Company at Assumption, Ill., which has been torn down. The new house will be operated by steam power and will be equipped throughout with the "Western" Line of machinery purchased of the Union Iron Works, Decatur, Ill. The equipment includes a 1,000-bushel sheller and cleaner. The work is being done by W. H. Wenholz of Springfield, Ill.

MISSOURI, KANSAS AND NEBRASKA

A 50,000-bushel elevator will be erected at Drexel, Mo.

A. H. Phelps is planning to build an elevator at Steele, Neb.

An elevator and feed mill will be established at Ralston, Neb.

A farmers' elevator company is being organized at Howell, Neb.

Archie McGilvray will engage in the grain business at Mendon, Mo.

An addition has been built to Gifford Bros.' elevator at Jamestown, Kan.

J. B. McClure has sold his elevator at Fowler, Kan., to Adelbert Albertson.

J. M. Black will rebuild the elevator at Lebo, Kan., and install an electric plant.

Sutherland & Cooper have entered the grain and feed business at Meade, Kan.

The W. W. Birge Company, grain dealers, has been organized at North Platte, Neb.

The Farmers' Grain and Supply Company will either build or buy a house at Zenda, Kan.

It is said that work will soon begin on the construction of a 50,000-bushel elevator at Amoret, Mo.

The Majestic Milling Company contemplates the construction of an addition to its elevator at Hoberg, Mo.

Keckler & Schafer are building a new elevator at Louisville, Neb., to replace the one that burned in February.

It is reported that plans are under way for the formation of a farmers' elevator company at Westpoint, Neb.

D. S. Warwick, president of the Millers' Grain Company of Wichita and Hutchinson, Kan., has purchased a site at Coldwater, Kan., for the erection of an elevator.

The stockholders of six farmers' unions purchased the Holmquist Elevator at Nickerson, Neb., and took possession on April 1. The business will be known as the Farmers' Co-operative Elevator

Company. Morris Jorgenson has been elected president and Warren Mulliken, treasurer.

The Duff Elevator Company has torn down its elevator at Graf, Neb., and a larger one will be built on the site.

Construction work is progressing on the elevator and plant of the Bowersock Milling Company at Lawrence, Kan.

The Gregg Grain Elevator at Edgar, Neb., has been dismantled and a new house will be constructed in its place.

The Arkansas City Milling Company of Arkansas City, Kan., is building an elevator at Tresham (R. F. D. from Winfield), Kan.

The Farmers' Equity Union has engaged in the grain business at Meade, Kan., and the construction of an elevator is contemplated.

The Farmers' Equity Union of Fowler, Kan., has taken over the new elevator recently constructed by the Southwest Grain Company.

The J. D. Kennard Investment Company has sold the Kreeck elevator, coal yard and feed mill at Lawrence, Kan., to W. D. Gwin.

The Farmers' Elevator at Cullison, Kan., was sold at auction, Henry Barbee of Pratt, Kan., taking over the property for \$5,700.

The elevator at Cainesville, Mo., formerly operated by the Farmers' Elevator and Supply Company, now bankrupt, has been sold at auction.

Fravel & Lewis, of Kinsley, Kan., have placed an order for complete equipment for a grain elevator and feed mill with the Great Western Manufacturing Company of Leavenworth, Kan.

The Farmers' Grain Company has been incorporated at Bancroft, Neb., with a capital stock of \$10,000. The incorporators are Chas. Graff, Wm. Tighe, R. H. Stafford, R. A. Ortmann and G. Arthur Bailey.

H. W. Skinner has awarded a contract for the erection of an elevator at Medicine Lodge, Kan. The house will have a capacity of 12,000 bushels and will be equipped with a grinder and cleaner, hopper scales, car dump, etc.

Work is progressing rapidly on the new Wabash Elevator at Harlem, Mo. It consists of a 250,000-bushel addition to the old elevator and also, repairs on the house. The Stephens Engineering Company of Chicago has the contract.

The Slater Mill and Elevator Company of Slater, Mo., has awarded a contract for the erection of an elevator with 100,000 bushels' capacity. The house will be of concrete construction and the equipment will include a 2,000-bushel grain cleaner and a 500-bushel hopper scale.

EASTERN

Farmers in the vicinity of Blairsville, Pa., plan the erection of an elevator.

Thieves recently entered the office of Paul Vigeant, grain dealer at Lowell, Mass., and took cash amounting to more than \$1,000.

Hezekiah Cook has retired from the grain firm of H. Cook & Co. at Dillsburg, Pa., and the remaining members, J. E. Cook and S. S. Shefer, have formed a partnership and will continue the business under the firm name of Cook & Co.

At a recent farmers' convention held at Sandy Spring, Md., a committee was named to plan the establishment of co-operative grain elevators throughout Montgomery County. Mortimer O. Stabler was appointed chairman.

A permit was recently issued to James Stewart & Company, Chicago, for the erection of the reinforced concrete and steel elevator at Girard Point, Philadelphia, for the Pennsylvania Railroad. As mentioned, in previous issues, the work on the substructure began last fall, but was suspended during the winter. Construction work will now be rushed to completion. The total cost of the plant will approximate \$1,000,000.

The Burrell Engineering & Construction Company has the contract for a new floating elevator for the International Elevator Company at New York City. It will take the grain from small boats and pull it into ocean-going steamers, having a handling capacity of 15,000 bushels per hour. There will be two marine legs with a capacity of 7,500 bushels each per hour, and it will be equipped with

15,000 bushels per hour cleaner. There will also be a nominal storage capacity of 30,000 bushels.

The Cutler Company of North Wilbraham, Mass., dealers in grain, has purchased a tract of land at Westfield, Mass., on which an elevator and warehouse will be erected.

Eldredge & Phillips, Inc., have been incorporated at Cape May, N. J., with a capital stock of \$25,000, to deal in grain, hay, flour, etc. The incorporators are I. H. Eldredge, W. H. Phillips and M. L. Eldredge.

IOWA

The elevator at Carnarvon, Iowa, will be remodeled and improved.

Hanson & Son have discontinued their grain business at Coulter, Iowa.

A new elevator may be erected at Ladora, Iowa, by the Farmers' Supply Company.

The Farmers' Trading Company of Laurens, Iowa, will build additional cribbed oat storage.

C. H. Kruse is remodeling his elevator at Silver City, Iowa, and new equipment will be installed.

The Malvern Grain and Milling Company, Malvern, Iowa, has closed its elevator for the season.

The Farmers' Elevator Company of Clarion, Iowa, recently declared an annual dividend of 30 per cent.

The farmers in the neighborhood of Fernald, Iowa, may form a farmers' co-operative grain company.

F. G. Peterson of Moorland, Iowa, has engaged in the grain business at that place and will build an elevator.

It is reported that the Taylor-Patton Company of Des Moines, Iowa, will build several new elevators this year.

E. F. Wentz of Oakland, Iowa, plans improvements for his elevator, including an elevator leg, dump, etc.

The elevator at Yetter, Iowa, will be remodeled and a concrete foundation will be constructed under the house.

C. W. McCaustland, of Atlantic, Iowa, has taken over Emil Rothschild's interest in the elevator at Lorah, Iowa.

The Farmers' Mutual Elevator Company of Grinnell, Iowa, has increased its capital stock from \$5,000 to \$9,000.

W. J. Upton recently sold his grain and implement business at Lacey, Iowa, to D. Bartlett and Ernest Ballinger.

Metcalf & Son, of Kesley, Iowa, will install a cleaner, automatic scale and other improvements in their elevator.

O. A. Smith, of Stratford, Iowa, has purchased the Wheeler Elevator at Leverett (R. F. D. from Marathon), Iowa.

E. W. Cates & Co. have leased the Illinois Central right-of-way at Pomeroy, Iowa, on which they will build an elevator.

J. E. Hale has purchased the house of the Neola Elevator Company at Collins, Iowa, and will take possession June 1.

Henry Wahl has purchased the elevator at Victor, Iowa, from George R. Wheeler and possession will be given this month.

The Farmers' Grain Company of Sioux Rapids, Iowa, has awarded a contract for the erection of a 30,000-bushel elevator.

The Garrison Grain and Lumber Company of Garrison, Iowa, has awarded a contract for the remodeling of its elevator.

C. S. Stearns has sold the elevator at Garden Grove, Iowa, to W. T. Lingle of Bethany, Mo., and J. L. Phipps of Garden Grove.

The Merchants' Elevator Company of Minneapolis, Minn., has taken over the interest of Rothschilds & Co., in the elevator at Blue Grass, Iowa.

The Neola Elevator Company will install a number of improvements at Perry, Iowa, including a lumber office, lumber sheds and a coal elevator.

The house of the Farmers' Elevator Company at Sergeant Bluff, Iowa, has been taken over by the Trans-Mississippi Grain Company of Omaha, Neb.

Voogdt Bros., of Aplington, Iowa, have purchased the grain business of Schmertman & Ontjes at Eleanor, Iowa, but will not take possession for some time.

The Farmers' Grain & Lumber Company of Marathon, Iowa, has awarded the contract for the erection of a 30,000-bushel elevator and construction will begin at once.

E. L. Billings and E. A. Bowles of Marshalltown, Iowa, and Ben Kessler of Grundy Center, Iowa, have purchased a line of six elevators between Marshalltown and Algona, Iowa.

The Ladora Lumber & Grain Company has been incorporated at Ladora, Iowa. O. B. Slaymaker was elected president and the other members of the board are: Geo. E. Morse, W. B. Fields, Elias Whit-

lock, Hugh Curfman, John Rathjen and Jas. Scandridge.

It is reported that a company of farmers four miles east of Fonda, Iowa, has petitioned the Illinois Central Railroad for a spur track to a site on which the erection of an elevator is planned.

The Farmers' Grain and Coal Company of Havelock, Iowa, has awarded a contract for the erection of a 30,000-bushel elevator to cost about \$5,200. The house will be complete about June 1.

An effort is being made to organize a farmers' elevator company at Cleves, Iowa. The following officers have been elected: D. M. Leach, president; J. J. Ludeman, secretary, and Fred Ludeman, treasurer.

The Farmers' Co-operative Commission Company recently incorporated at Manchester, Iowa, with a capital stock of \$10,000. Branch offices will be maintained at Delaware, Greeley, Masonville and other places.

The Hobart Farmers' Elevator Company is under organization at Hobart (R. F. D. from Algona), Iowa. F. W. Dingley, W. H. King, P. H. Hargraves, J. W. Sullivan and W. B. Quarton are interested in the new project.

F. H. Kurtenbach and Mike Delagardelle have entered the grain business at Gilbertville, Iowa, under the firm name of the Gilbertville Grain & Lumber Company, and they have an elevator and lumber sheds under construction.

B. F. Vorhes, who recently purchased the elevator at Liscomb, Iowa, has rebinned the house and new equipment has been installed. It will have a capacity for handling 1,300 bushels per hour and a storage capacity of 20,000 bushels.

A farmers' co-operative company, to be called the Sheldahl & Slater Grain & Lumber Company, is being organized at Sheldahl, Iowa, and will be capitalized at \$25,000. It is the purpose of the company to operate grain and lumber houses at Sheldahl, Slater and Polk City Junction, Iowa, and it is probable that the houses of the B. A. Lockwood Grain Company at Slater and at Sheldahl will be purchased. The officers of the new company are: H. H. Schonhorst, president; Walter Frick, vice-president, and Philip Berggren, secretary.

MINNESOTA AND WISCONSIN

It is probable that an elevator will be constructed at Winsted, Minn.

A farmers' elevator company is being organized at Blue Earth, Minn.

A gasoline engine has been installed in the elevator at Medford, Minn.

The firm of F. Maegerlein & Son, at Sauk City, Wis., has been dissolved.

The State Elevator at Grove City, Minn., has been closed for the season.

The Co-operative Elevator Company of Winona, Minn., will build a new elevator.

A farmers' co-operative elevator may be built at Revere, Minn., by the farmers of that vicinity.

Chris Hillistad recently purchased a grain warehouse at Anderson, a village near Lysne, Minn.

N. M. Evenson, of Beaver Creek, Wis., has purchased N. Abrahamson's elevator at New Auburn, Wis.

H. F. Sprunf, secretary of the Commercial Club, is promoting the erection of an elevator at Ada, Minn.

The Tracy Farmers' Elevator Company at Tracy, Minn., has been considering the construction of an addition.

The Franklin Farmers' Elevator Company has purchased the Security Elevator at Franklin, Minn., for \$4,300.

The Farmers' Elevator Company has been organized at Buffalo Lake, Minn., with a capital stock of \$20,000.

The C. S. Christensen Company will build an elevator at Madelia, Minn., to replace the house recently burned.

Edward Bohn and Thomas Owen, of Downsville, Wis., have purchased the elevator at Kyle, a village near Downsville.

The elevator and feed mill at Elysian, Minn., were sold at auction recently and H. A. Schneider secured the property for \$960.

The elevator, feed mill, rye mill and flour mill of the Jackson Milling Company at Stevens Point, Wis., will be operated independently of one another.

A farmers' elevator company has been organized at Comfrey, Minn., with a capital stock of \$15,000. The officers are: August Klein, president; Carl Blick, vice-president; Carl A. Anderson, secretary, and Andrew Steinmetz, treasurer.

Construction work has been completed on Emil Hauterbrook's new elevator at Green Bay, Wis., and the house has been opened for business. It is called the Rapid Electric Power Grain Elevator and has a

capacity of 20,000 bushels. Mr. Hauterbrook is handling grain, flour, bran, middlings and feed.

It is reported that the elevator at Priam Post (R. F. D. from Willmar), Minn., has been closed.

The Society of Equity will erect a warehouse at Parkers Prairie, Minn.

It is reported that Minneapolis grain men are interested in the establishment of an elevator on a site recently purchased at Pipestone, Minn. J. E. Stair is mentioned as one of the members of the new company.

The Gould Grain Company will build 18 reinforced concrete grain tanks at Minneapolis, Minn., costing about \$75,000. Each tank will be 22 feet in diameter and 88 feet high. The Witherspoon-Englar Company of Chicago prepared the plans.

The Farmers' Co-operative Elevator Company of Fairfax, Minn., will soon award a contract for the erection of a concrete elevator having a capacity of 30,000 bushels. The house will cost in the neighborhood of \$12,000 and will be located on a site near the company's present frame structure.

The stockholders of the Farmers' Elevator Company at Brewster, Minn., have decided to build a new elevator having a capacity of 40,000 bushels. One of the old houses now in use will be torn down, it is expected, and the other will be utilized as a corn elevator and a sheller will be installed.

WESTERN

The Farmers' Union will build an elevator and flour mill at Ephrata, Wash.

The Farmers' Elevator Company has discontinued business at Rexsburg, Idaho.

Frank Gess has purchased an interest in a grain business at Long Beach, Cal.

The farmers around Deary, Idaho, are planning the formation of a company which will build an elevator.

The Farmers' Union at Creston, Wash., has been considering the advisability of erecting an elevator at that place.

Miller Bros. Company of St. Anthony, Idaho, contemplates the erection of elevators at Chester and Drummond, Idaho.

The Spokane Grain Company, Spokane, Wash., recently displaced several of its horse delivery trucks with a five-ton motor truck.

The grain business at Genesee, Idaho, operated by C. A. Woods will be discontinued this fall, it is said, owing to the failing health of Mr. Woods.

The safe in the office of the Western Grain and Seed Company at Pasco, Wash., was wrecked by burglars recently and about \$40 was taken.

The Leitch Warehouse & Grain Company of Tacoma, Wash., has taken over the business of the Farmers' Warehouse Company at Lind and Ralston, Wash.

The Farmers' Union at Colton, Wash., has begun work on its new concrete elevator which will replace the warehouse wrecked by a weight of snow last winter.

The Washington Grain & Milling Company, which operates at Reardan and Mondovi, Wash., will erect a 75,000-bushel warehouse and elevator at Mondovi, costing about \$6,000.

George W. Crowell, senior member of the grain and lumber firm of Crowell Bros. at Alva, Okla., will remove to Denver, Colo., where he will conduct a branch office for the company.

It is said that an elevator will be built at Menard, Mont., a new town at the terminus of the north branch of the Gallatin Valley line of the Chicago, Milwaukee & Puget Sound Railroad.

The farmers and merchants of Downey, Idaho, recently held a meeting to consider the erection of an elevator and flour mill to be operated by the Farmers' General Trading Company of which R. C. Geddes is president.

The Kansas and Pacific Flour and Grain Company recently incorporated at Los Angeles, Cal., with a capital stock of \$2,500. I. M. Yost of Kansas City, Mo., owner of a mill at Wilson, Kan., is a director in the new company.

The Endicott Union Elevator has been incorporated at Endicott, Wash., with a capital stock of \$15,000. The following officers were elected: A. T. Jones, president; Peter Green, vice-president, and J. A. Marsh, secretary and treasurer.

A "Midget" marvel mill manufactured by the Anglo-American Mill Company of Owensboro, Ky., has been sold to J. G. Wolfe of Almira, Wash. The first unit giving a capacity of 25 barrels per day, will be augmented by a second and possibly a third unit later on.

The Plains Milling and Elevator Company has been incorporated at Plains, Mont., with a capital stock of \$75,000. The incorporators are Frances Huot, E. J. Huot, C. C. Willis of Plains, and John E. Willis of Glasgow, Mont. The company is adding a number of improvements to its plant, includ-

ing a warehouse and the building of elevators at Perma and Dixon, Mont.

The Union Flour Mills, recently incorporated at Spokane, Wash., with a capital stock of \$100,000, has taken over the elevators at Spangle, Cunningham, Odessa and Irby, Wash., and the company will build houses at several other stations.

The Montana Elevator Company of Lewistown, Mont., is planning to build at least ten new elevators this summer. Probable locations, although not officially announced, are Roy, Winifred, Denton, Geraldine, Hossiac, Arrow Creek, Kolin and other towns.

The Newmark Grain Company, which is associated with the Great Western Milling Company, Los Angeles, Cal., has applied for a permit to build docks and a warehouse at Long Beach, Cal., the work to be paid for by the company, reimbursement to be made later by the city.

The Grain Growers' Association at Wilbur, Wash., will build a 100,000-bushel elevator costing \$12,000.

The Malden Grain Company has opened an agricultural warehouse at Malden, Wash., and a full line of farm implements has been installed. S. J. Trunkey is in charge.

The Denton Farmers' Elevator Company has been incorporated at Denton, Mont., one of the new towns on the Lewistown-Great Falls division of the Chicago, Milwaukee & Puget Sound Railroad. The capital stock is \$25,000 and the incorporators are Messrs. Friedlein and Pearsson, of the Lewistown Farmers' Elevator Company, Lewistown, Mont., and R. J. Anderson.

OHIO, INDIANA AND MICHIGAN

C. E. Young & Son have engaged in the grain business at Lima, Ohio.

John Gienger & Co. will erect a 10,000-bushel elevator at Jeffersonville, Ind.

H. H. Vocke and J. Vocke, millers at Napoleon, Ohio, will build a new steel elevator this spring.

F. H. Russell, of Clarksfield, Ohio, has leased the elevator at West Clarksfield, Ohio, from Robert Sly.

The Farmers' Grain & Supply Company of Camden, Ind., has increased its capital stock from \$10,000 to \$25,000.

The Mayville Grain & Produce Company has been incorporated at Mayville, Mich., with a capital stock of \$8,000.

A co-operative farmers' elevator company has been formed at Breckenridge, Mich., with a capital stock of \$30,000.

The Crystal Lake Grain & Produce Company has been incorporated at Beulah, Mich., with a capital stock of \$5,000.

An elevator will be erected in connection with the meal mill of C. E. Sears & Co., now under construction at Circleville, Ohio.

Johnson Curl of Cardington, Ohio, has purchased the elevator and feed store at Marion, Ohio, formerly owned by S. E. DeWolfe.

Castetter & Co., of Goshen, Ind., have leased the Lake Shore Elevator at Bristol, Ind., and they will install a conveyor and dump.

The Bascom Elevator and Supply Company has been incorporated at Bascom, Ohio, by J. G. Wertz, Charles D. Summer and John Reinbold.

The 250,000-bushel bean and grain elevator at Saginaw, Mich., has been completed. About 200 girls will be employed in the bean department.

The Farmers' Elevator Company has been organized at Lacrosse, Ind., with a capital stock of \$10,000. An elevator having a capacity of 25,000 bushels will be constructed.

The Shawtown Grain Company, recently incorporated at Shawtown, Ohio, has begun the construction of an elevator. When the house is complete, the Nickel Plate Railroad will build a spur track to it.

W. G. Poast recently traded the People's Elevator at Columbus Grove, Ohio, to a Mr. Recker for a farm near Pandora, and later, Mr. Recker disposed of the house to W. O. Stewart, who has taken possession.

The Hoytville Grain Company has been incorporated at Hoytville, Ohio, with a capital stock of \$12,000. The incorporators are John T. Markland, W. W. Ferrell, L. J. Weaver, J. D. Burgoon and W. D. Simon.

The grain firm of Weber & Purviance, which operates elevators at Huntington, Simpson and Mardenis, Ind., has been incorporated with a capital stock of \$50,000. The incorporators are A. A. Weber, Donald A. Purviance and Paul G. Weber.

Frank E. Nowlin has completed the construction of his new grain elevator and produce house at Albion, Mich. The building is 180x36 feet in size and two stories in height. It has been equipped with most modern devices for handling grain and produce, including a feed grinder, corn sheller and baling machine. Mr. Nowlin formally opened his new house with a dance, and it is said that more

than 3,000 people attended the festivities during the afternoon and evening.

The new elevator of the Chicago, Indiana and Southern Railroad Company at Schneider, Ind., will be ready for operation in a few days. It is a fireproof concrete structure with a capacity of 250,000 bushels and was built by the Stephens Engineering Company of Chicago.

The Grand Rapids Grain and Milling Company of Grand Rapids, Mich., has purchased a plant at that place which will be remodeled at once to meet the needs of the company's increasing business. L. Fred Peabody, manager of the company, stated that the plant now in use will be sold as soon as the building recently taken over is ready for occupancy.

SOUTHERN AND SOUTHWESTERN

Jacob Blass has been granted a permit to build an elevator at Little Rock, Ark., to cost \$2,000.

Cogar & Rumley have awarded a contract for the erection of a 20,000-bushel elevator at Midway, Ky.

The Darragh Company of Little Rock, Ark., is arranging to build additional grain storage in the way of a large warehouse.

The Green Forest Milling and Elevator Company has been incorporated at Green Forest, Ark., with a capital stock of \$25,000.

F. M. D'Alton & Co., commission merchants, are building a grain house at Petersburg, Va., which will have a capacity of 7,500 bushels.

The Marsh Milling and Grain Company contemplates the reconstruction of its warehouse which recently burned at Madill, Okla.

J. L. Tipton, of Kansas City, Mo., has announced that he will erect an elevator, feed mill and alfalfa mixer plant at Bartlesville, Okla.

It is reported that the Cumberland Valley Railroad will rebuild the elevator at Martinsburg, W. Va., which recently burned, at a cost of \$35,000.

The Pampa Grain Company, Pampa, Texas, will increase its elevator facilities this year and new houses will be erected in the neighboring section.

W. L. Hutchinson, manager of the Denison Mill and Elevator Company, Denison, Texas, contemplates erecting an elevator at Wapanucka, Okla.

The Edwards Elevator Company has been incorporated at Foraker, Okla., with a capital stock of \$10,000. The incorporators are D. J. Edwards, D. C. Edwards and H. J. Edwards.

The Hollingsworth-Leath Grain Company has been organized at Gadsden, Ala., with a capital stock of \$5,000. The officers are: E. T. Hollingsworth, Jr., president; S. E. Jordan, vice-president, and H. Clay Leath, treasurer.

The Frisco Farmers' Independent Gin, Mill and Elevator Company has been incorporated at Frisco, Okla., with a capital stock of \$10,000. The incorporators are J. W. Mobley, E. N. Massey, John Hayes and J. W. Stegall.

G. T. Propper of the Waterways Navigation Company of St. Paul, Minn., is arranging for the erection of a grain elevator at New Orleans, La., and contemplates the establishment of a barge line from St. Paul to New Orleans.

The Lahoma Grain and Livestock Company has been incorporated at Lahoma, Okla., with a capital stock of \$5,000. The incorporators are M. Goodnature of Enid, Okla., C. E. Ramsey of Lahoma, and J. N. Courter of Enid.

The Hardin Grain & Supply Company has been incorporated at Byron, Okla., with a capital stock of \$4,000. The incorporators are George E. Hardin, Ashsah A. Hardin and Mrs. Una E. Vance, of Wakita, Okla., and Otis J. Hardin, of Gibbon, Okla.

M. E. Goodman, of Houston, Texas, has purchased the business of the Orange Grain Company at Orange, Texas, from his brother, A. B. Goodman, who will remove to Lake Charles, La., where he is interested in the Lake Charles Grain Company.

Among other improvements, the Mountain City Milling Company of Chattanooga, Tenn., has under construction an elevator, consisting of 13 bins, with a capacity of 250,000 bushels. The building will be of reinforced concrete and absolutely fireproof.

The Duncan-Hodnett Grain Company of Atlanta, Ga., has filed an amendment to its charter, changing its name to the W. S. Duncan Company. E. H. Waldrop has succeeded the late A. W. Hodnett as vice-president. W. S. Duncan is president and J. L. Duncan, secretary and treasurer.

Relatives of the late H. K. Cochran, grain dealer, and others have organized the H. K. Cochran Company at Little Rock, Ark., and taken over the business of Mr. Cochran. The capital stock is \$40,000 and the incorporators are H. K. Cochran, I. H. Cochran, Carroll Thibault, S. A. Cochran, J. C. Cochran and D. H. Cantrell.

The Lake Charles Grain Company, capitalized at \$50,000, has been incorporated at Lake Charles, La., and the officers are: Rudolph C. Miller, president; Jackson K. Josey, vice-president; Everett O. McClain, secretary, and Adrian B. Goodman, treasurer.

The new company is a branch of the Josey-Miller Company, of Beaumont, Texas.

The J. D. Chalfont Grain Company of Clinton, Okla., is reorganizing for the purpose of establishing a line of elevators in western Oklahoma. Houses are now operated at Bessie, Sentinel and Oakwood, Okla. F. W. Nelson of Albany, Texas, is interested in the reorganization.

THE DAKOTAS

It is reported that elevators will be built at Buford and Cartwright, N. D.

S. H. Taylor and others are planning to organize a farmers' elevator company at Roseville, N. D.

A cement and lime building has been constructed at Grand Rapids, N. D., for the Powers' Elevator.

A flour and feed house has been erected at Ege-land, N. D., in connection with the Woodworth Elevator.

A. G. Sorlie, of the firm of Reid & Sorlie, grain dealers at Grand Forks, N. D., has purchased the interest of his partner, Hugh Reid.

The Occident Elevator at Edgeley, N. D., has been removed to the site formerly occupied by the Powers Elevator, which was destroyed by fire last fall.

The Occident Elevator Company has dismantled its house at Divide (R. F. D. from Cheyenne), N. D., and it will be removed to a site in Stutsman County, N. D.

The farmers in the vicinity of Hoving (R. F. D. from Gwinner), N. D., are organizing a farmers' elevator company and it is the purpose to build a house for this year's crop.

The Farmers' Elevator Company has been incorporated at Yale, S. D., with a capital stock of \$6,000. The incorporators are James Corrigan, William Gaughran and Mr. La Fayette.

The Farmers' Grain & Trading Company has been incorporated at Milnor, N. D., with a capital stock of \$10,000. The incorporators are D. A. Cross, A. A. Stockstad and H. C. Christopherson.

The stockholders of the Farmers' Elevator Company at Plankinton, S. D., have decided to dismantle their old house and build in its place a new elevator having a capacity of 30,000 or 35,000 bushels.

Martin Johnson, of Hartland, N. D., has taken over the plant of the Sharon Elevator & Milling Company, at Sharon, N. D., consideration \$42,600. K. K. Bakken was also interested in the purchase.

The Farmers' Elevator Company of Ethan, S. D., has taken over the interests of the South Dakota Grain Company at that place, thereby increasing the former company's storage capacity to 65,000 bushels.

The directors of the Farmers' Mill & Grain Company of Gwinner, N. D., have declared a dividend of eight per cent, payable on May 1. The officers were re-elected with the exception of the president, Jens Pederson, who resigned. Ole Hansen was elected to succeed him.

The elevator at Kramer, N. D., which was recently damaged by fire has been repaired and operations have been resumed.

An elevator will be erected at Guthrie, N. D., to replace the one destroyed by fire in January. The house was owned by the Ely-Salyards Company.

The Norton Grain and Mercantile Company has been incorporated at Norton, N. D., with a capital stock of \$50,000. The incorporators are A. B. Bylin, Lars Erickson and C. L. Johnson.

CANADIAN

The Grenfell Farmers' Elevator Company, Ltd., has been incorporated at Grenfell, Sask.

The Acme Grain Company, Ltd., has been incorporated at Winnipeg, Man., with a capital stock of \$50,000.

Howard & Sons have purchased the grain business at Edmonton, Alta., formerly operated by the J. T. Pugh Grain Company.

The Fort William Starch Company of Fort William, Ont., has awarded a contract for the erection of a 1,000,000-bushel elevator.

A branch of the Grain Growers' Grain Company has been organized at Stonewall, Man., and James McIntyre was appointed president.

The Saskatchewan Co-operative Elevator Company will erect an elevator at Herbert, Sask., and construction will begin at once, it is said.

The Athabasca Grain and Produce Company has sold its business at Athabasca Landing, Alta., to the Peace River Trading and Land Company.

The Grain Growers' Grain Company recently held a meeting at Kenville, Man., for considering the advisability of erecting an elevator at that place.

The Agricultural Society of Bowden, Alta., will either sell its elevator to the Alberta Pacific Elevator Company or remove it to a more suitable location.

The Canadian Pacific Railway has awarded a contract to the Canadian Stewart Company for the erection of a 3,000,000-bushel annex to its elevator "D"

at Fort William, Ont. This will increase the capacity of this elevator to 7,000,000 bushels.

Work has been commenced on the foundation of the Harbor Commissioners' elevator at Quebec, Que. The contractors are the Canadian Stewart Company, Ltd.

The new 25,000-bushel elevator of the Grain Growers' Grain Company is now in operation at New Westminster, B. C., and C. B. McAllister is in charge.

It is reported that the Grain Growers' Grain Company of Winnipeg, Man., and Calgary, Alta., is considering the establishment of a terminal elevator at Vancouver, B. C. The company will either build or lease a house.

The new addition to the Canadian Northern Elevator at Port Arthur, Ont., consisting of 80 tanks, has been completed. The total capacity is now over 9,000,000 bushels. It is reported that the company contemplates the building of a similar unit this summer.

The Western Elevator Company, Ltd., of Fort William, Ont., has taken out a permit for the erection of an annex to its elevator on the Kaministiquia River. The Burrell Engineering & Construction Company of Chicago has been awarded the contract. The addition will have a capacity of 1,100,000 bushels, and according to the contract, the building is to be completed in time for the fall crop.

[Special Correspondence.]

GRAIN NEWS FROM TOLEDO

BY E. F. BAKER.

This entire section has recently passed through the biggest flood calamity of its history. The suffering has been great, loss of life heavy and the damage to property has run into the millions of dollars. Toledo and Lucas County were fortunate and practically no damage is reported in this immediate vicinity but northwestern Ohio cities, Fremont, Tiffin, Napoleon, Defiance, Findlay, were all struck heavily and loss to life and property was great. Millers and elevator men throughout Ohio and Indiana suffered heavy losses but it is generally believed that the growing wheat has been but slightly damaged. The new crop of wheat is said to present the best appearance in years past and there was very little wheat planted in the lowlands. The losses such as they were were on grain planted near the river courses and even here unless badly washed out the damage was not heavy as the deposit left by the water is extremely rich and will act as a splendid fertilizer. Generally speaking the wheat throughout this section has never looked better and high hopes are entertained for a banner crop.

Owing to the late fall many farmers in this section had their plowing done but it is still early for corn planting and there has been but little oats sowing.

Wheat stocks here are decreasing and receipts are extremely light, most of the wheat coming into this market being No. 2 Red mixed. The stock of No. 2 Red wheat in Toledo is now below 200,000 bushels.

The corn receipts are running light but it is generally believed that there are still large quantities of corn held by farmers in this section, much of this being held in the hope of higher prices while others are holding their corn because of bad roads and the beginning of spring work which is taking their time. Predictions are being made by grain men here that corn will be lower next week than it is now. Others take the stand that continued bad weather, which the pessimists have a habit of looking for, will hold the prices down.

Toledo receipts for the past week were as follows: wheat, 29,000 bushels; corn, 57,600 bushels; oats, 50,200 bushels. The week's shipments were: wheat, 22,600 bushels; corn, 115,200 bushels; oats, 80,500 bushels. The market closed here today with cash wheat at \$1.12½; cash corn, \$0.57; cash oats, \$0.37½.

Mills throughout this section are running light and some fear is expressed that there will not be enough wheat here to carry through the season.

Mill feed is a trifle stronger than it was last month but is still extremely slow.

Clover has passed a remarkably healthy winter, there being practically none of the thaw-and-freeze weather so detrimental to this crop. The crop is giving excellent promise and a bumper crop is looked for.

Following are the local prices for baled carload lots of new hay: No. 1 timothy, \$10.00 and \$18.00; No. 2 timothy, \$11.00 and \$11.50; light clover, mixed, \$11.00 and \$11.50; No. 1 clover, mixed, \$11.00; No. 2 clover, mixed, \$7.00; oat or wheat straw, \$5.00.

* * *

President F. O. Paddock of the Toledo Produce Exchange, F. W. Young, E. L. Southworth, Geo. W. Woodman, H. W. Applegate, Charles Knox, E. H. Culver, H. W. DeVore, C. S. Coup, Fred Wickenhiser, prominent Toledo grain dealers, were in Washington this week for the final hearing before the Interstate Commerce Commission on the long drawn out rate discrimination fight of the local

grain men against railroads. The final hearing was Wednesday but it is probable that it will be some time before the decision is rendered.

* * *

News from the flooded district has been sifting in slowly but such as has arrived tells tales of great losses not only in elevators, mills and machinery, but in private losses in homes by grain men everywhere in the flooded districts. The Durst Milling Co., of Dayton, for instance was under three feet of water in the mill. This concern expects to start up within a week, however. The Carr Milling Co., at Hamilton, O., was under water. The books and office furniture were completely destroyed. The concern hopes to be operating again within a few days. The Canal Elevator Co., of Peru, Ind., was submerged, only the cupola of the elevator being visible. The losses will be heavy. The accompanying illustration shows how the water looked around this elevator during the flood. The J. H. Vocke & Sons flour mill was surrounded by water and fearing that the buildings would be undermined the concern moved its entire stock of flour into other quarters. The Groweg Elevator at Defiance, Ohio, suffered severely and sustained heavy losses.

* * *

David Anderson, Fred Mayer, W. H. Haskell, W. H. Wiggins, prominent Toledo grain men, are sojourning at French Lick Springs, an Indiana health resort. Messrs. Anderson and Mayer were accom-

panied by their wives. E. L. Camp and K. D. Keilholtz expect to leave this week for the same place.

* * *

A. E. Royce, of Bowling Green, O., where he has been in the grain business for the past 30 years, and a stockholder in the East Side Iron Elevator Co., of Toledo, has applied for a membership card at the Toledo Produce Exchange. E. A. Nettleton, of the Imperial Grain & Milling Co., also applied for membership at the local 'Change this week.

* * *

The Produce Exchange bowling team which has been bowling in the tournament held here has made a creditable showing.

* * *

Charles A. Groweg died recently at a Toledo hospital following an operation. He was aged 49 years and had been in the grain business for years. He left four children. He was the son of A. Groweg, one of the best known grain men in Defiance, O.

* * *

Manager Allen of the Ohio Valley Grain & Feed Co., of Corapolis, Pa., was a recent visitor at the Toledo Produce Exchange.

* * *

Mrs. Henry Goemann, the aged mother of Henry L. Goemann, prominent Toledo grain man, died recently at the home of her son at the Tufford Arms. She was aged 80 years. The body was taken to Cincinnati for burial.

* * *

H. W. Fish, secretary of the Ohio Millers State Association, has assumed the management of the Marion, Ohio, National Mills.

* * *

The Seneca county fair officials have announced a boys' stock judging contest including a free scholarship for two years at the college of agriculture, a trip to the international live stock show at Chicago and a trip to the experiment station at Wooster, O.

* * *

Mark Mennel, of Toledo, Lee F. Graybill, of Massillon, O., and Charles Bauman, of Canal Win-

MANY NEW USES FOR CORN

Corn is the king of the grains in all around usefulness. Every year some new use is found for it, says *Farm Machinery*. Indirectly it is the food for the entire meat-eating world. Then it is used for corn bread, hominy and many excellent dishes.

In the old days there were only two ways to dispose of it—to feed it to cattle and, in the shape of cornmeal, to some people. The meal had to be for local consumption, because when made, as it then was from the whole kernel, it soon became rancid.

From the germ, which is separated from the kernel in the milling process, the oil is now extracted by chemical and mechanical processes, and constitutes a product which is coming into use in the manufacture of paint.

The vulcanized oil is used exclusively in surfacing linoleum and oilcloth and is applied to a number of other purposes. After the oil is extracted there is left a valuable residuum known as corn oilcake, which is sold here and abroad for use in the fattening of sheep and other animals.

A corn product which is coming into extensive use is glucose, made from starch, water and sul-



PLANT OF CANAL ELEVATOR COMPANY, PERU, IND. FROM A PHOTOGRAPH TAKEN DURING THE RECENT FLOOD

Cupola of Building is Visible in Left Background. Wagon Bridge and Traction Bridge Both Washed Away.

phuric acid. Confectioners use large quantities of glucose, which is a colorless, sweetish syrup useful as food when properly taken. Nearly 200,000,000 pounds of glucose are sent out of this country each year to all parts of the world.

From corn starch also comes dextrin of several kinds, used extensively in the making of glue, paste and mucilage. When one licks a postage stamp one gets a taste of dextrin, flavored often with some harmless preservative.

Denatured alcohol is already extensively manufactured from corn, both at home and abroad. Despite the advancing price of the grain it is still one of the most economical sources of a product which, under different legal restrictions from those now in existence, may become important as a source of heat, light and power in homes, especially farm homes.

Experiments conducted here and abroad demonstrated that bulkheads constructed of cornstalks are nearly impervious to water when a shot passes through them. Some of the largest ships are now protected with a belt of corn cellulose, made largely from corn grown in the Ohio Valley. The same material, or modified forms of it, is used in the manufacture of high explosives, such as guncotton and smokeless powder.

Pyroxylin varnish, another material made from cellulose, is a very useful product manufactured in connection with the other products mentioned. Like the grain, the stalks contain a number of products which can be separated under proper chemical, physical and mechanical processes. It has been demonstrated that a form of low grade molasses can be taken from the cornstalks without in any way detracting from their value for the manufacture of paper.

Large quantities of ground grain and cobs are now used for feeding. The cob is also ground and mixed with various highly concentrated feeds, such as cottonseed meal, and sold for stock food. Large quantities of cobs, furthermore, are utilized in certain parts of the Mississippi Valley in the manufacture of corn-cob pipes.

TRANSPORTATION

The Bass Lake Grain Yards of the Chicago, Milwaukee and St. Paul Railroad are now completed. There are 27 tracks with a total capacity of 2,000 cars.

Substantial reductions in freight rates in Montana on the lines of the Chicago, Burlington & Quincy were ordered by the Montana Railroad Commission in a decision handed down March 31. The reduction will amount to about 30 per cent.

The final hearing of the complaint of the Toledo grain dealers charging discrimination in freight rates against some thirty railroads operating in Toledo was held before the Interstate Commerce Commission at Washington on April 9. Jean Paul Mueller of Washington represented the Toledo dealers in the hearing.

The State Railroad Commission of Kentucky at a meeting on April 3 ordered the Louisville and Nashville Railroad Company to issue a tariff from points on the Lexington Branch and the Shelbyville Branch of the road, establishing rates on straw to Covington not in excess of the rates from said points to Cincinnati, Ohio.

A proposed advance in switching charges of grain and grain products at Sheffield, Minn., was recently declared not justified in a decision by the Interstate Commerce Commission. An increase from \$3 to \$5 per car was proposed for switching cars between the interchange track of the Chicago, Rock Island & Pacific Railway, the mill of the Sheffield-King Company and the Chicago Great Western Railroad. It was held that a charge of \$3 may properly be made for the switching of a loaded car and \$1.50 for an empty car.

In a recent decision of the Interstate Commerce Commission the proposed advance in the minimum weight on ear corn, snapped corn, and corn in the shuck, in carloads throughout Southwestern lines territory, to 40,000 pounds, was found not to be justified. A flat minimum weight of 40,000 pounds was found to be reasonable, however, when standard 36-foot cars or longer are furnished. An order was entered requiring the carriers to cancel the suspended schedules and to maintain the present minimum-weight rule on cars smaller than the standard 36-foot cars and to establish a 40,000 pound minimum weight applicable to larger cars.

W. M. Hopkins, manager of the Transportation Department of the Chicago Board of Trade, advises in Bulletin 223, dated April 2, that the Elgin, Joliet & Eastern Railway has cancelled its commodity rates on grain in connection with the Chicago and Northwestern Railway and the Chicago, Milwaukee and St. Paul Railway. The railroad still has in effect commodity rates on grain in connection with the Atchison, Topeka and Santa Fe Railway and Chicago, Burlington and Quincy R. R., but it is the

intention of the company to cancel all rates on grain to Chicago via connecting lines, leaving in effect only the rates applying over its own rails from point of origin to South Chicago.

An order has been issued that for the present, Eastbound shipments over the Canadian Pacific Railway will not be accepted. There are 1,500 cars of grain now standing loaded in the yards of Port William and hundreds at other points between Winnipeg and the lakes, which the company cannot move, owing to the bad storms and general congestion.

HOPPER BOTTOM GRAIN CARS

Grain movement both in the United States and Canada will be expedited by the instantaneous unloading of hopper cars which are coming into general use on the Grand Trunk system as a result of service tests extending over a year which proved that the previous trouble of hopper cars has been solved. The enormous advantage of hopper cars long has been seen, but the trick was to get a car that would not leak grain along a thousand miles of right of way. That problem, it is reported, seems to have been solved.

The Grand Trunk has found that hopper cars which can carry grain in one direction and coal in the other and dumps either load in a few seconds have proved satisfactory. This announcement indicates that within a few years a great amount of time now lost in unloading with scoops will be lopped off the idle time of the cars. The type of car which has been tested is the invention of the superintendent of the car department of the Grand Trunk, J. Coleman, who has devised other important improvements in rolling stock. The car has a perfectly level and tight bottom, and is in every way the same as an ordinary box car except that it completely dumps grain or coal within a few seconds of time.

In carrying capacity the Coleman car has 1,833 bushels, as compared to 1,100 of the standard car; its load in tons is 55, as compared to 33 of the standard; carrying capacity in tons to one ton of tare weight 2.29, as compared with 1.78 of the standard. The Grand Trunk has ordered 1,000 hopper cars.

Officials of the Canadian Pacific Railway state that for a year more than 125 hopper bottom grain cars have been in successful operation on their lines between Port McNicoll and West St. John, and that recently 200 more cars of this type have been ordered. After taking the cars eastward with grain, a substitute floor is placed over the hopper bottom, which permits the car to be loaded with any class of freight which is ordinarily transported in box cars.

CHANGES IN RATES

These changes in rates affecting grain and grain products are furnished to the "American Grain Trade" by the General Traffic Association, Inc., 715 Fourteenth Street, N. W., Washington, D. C. If any of our readers feel that the present rates or those which are about to become effective are unjust, excessive or discriminatory, this company has agreed to take care of such matters before the Interstate Commerce Commission, at only a nominal cost.

Since our last issue the following new tariffs have been filed with the Interstate Commerce Commission, naming rates on grain and grain products, etc., with the I. C. C. numbers, effective dates and rates in carloads per hundred pounds, unless otherwise stated. (A) signifies advance and (R) means reduction.

CHICAGO GREAT WESTERN—Supplement 10 to I. C. C. No. 4742, April 15. Between East Dubuque, Ill., and Gilbertville, Burk and La Porte, Iowa, flaxseed and articles taking same rates, 12.5 cents; flour and articles taking same rates, 8.5 cents; oil cake and oil meal (linseed) westbound only, 6.5 cents.

Also Supplement 3 to I. C. C. No. 4871, April 3. To New Orleans, La., for export from Council Bluffs, Ia., Omaha and South Omaha, Neb. (applies only on shipments originating beyond), wheat, 19.5 cents; barley, corn and oats for export, 18.5 cents; also from same points to New Orleans, Baton Rouge, Bayou Sara, La., Greenwood, Natchez, Miss., North

Baton Rouge, La., and Vicksburg, Miss., for domestic use, 20 cents; from Minneapolis, Minnesota Transfer, St. Paul and South St. Paul, Minn., to New Orleans, Port Chalmette and Westwego, La., flaxseed, 38 cents; flour and bran for export to all countries, except Europe, Asia and Africa, 19.5 cents.

Also Supplement 5 to I. C. C. No. 4812, April 10. Between Milwaukee, Wis., and rate points and Freeman and Manly Junction, Ia., flaxseed and millet seed, 17.5 cents; wheat and flour, 14.5 cents (R); corn, oats, rye and barley, 13.5 cents.

Also Supplement 11 to I. C. C. No. 4631, April 21. Oil cake (linseed) and oil meal (linseed) from St. Paul, South St. Paul, Minneapolis, Minnesota Transfer, and Red Wing, Minn., to Divine, Del Abbey, Carbon Hill, Coal City, Centerville, Mazonia, Coster and South Wilmington, Ill., 12.5 cents (A).

CHICAGO, MILWAUKEE & ST. PAUL.—Supplement 11 to I. C. C. No. B-1957, April 9. Flour and articles taking same rates to Mona, Ia., from following group points: Winona, Minn., 12½ cents; Mankato, Minn., Winnebago City, Minn., 12½ cents; Pipestone, Minn., 15 cents; Fairmont, Minn., 13½ cents; Sioux Falls, S. D., 15 cents.

Also Supplement 25 to I. C. C. No. A-9775, April 25. Wheat, between Sioux City, Iowa, and Oacoma, 22½ cents; Reliance, 24 cents; Kennebec, Prescho, Vivian, Draper, Murdo, Mackenzie and Okaton, 25 cents; corn, rye, oats and barley between Sioux City,

Iowa, and Oacoma, 21 cents; Reliance, 22 cents; Kennebec, 23 cents; Prescho, Vivian, Draper, 23 cents; Murdo, Mackenzie, 24 cents; Okaton, S. D., 24 cents.

Also Supplement 120 to I. C. C. No. A-9945, April 25. Flour, bran, shorts and middlings from Red Wing, Minn., to White Rock, S. D., 12½ cents.

Also I. C. C. No. B-2642, May 1. Grain products from Kansas City, St. Joseph, Mo., Atchison and Leavenworth, Kan. (originating beyond or manufactured at those points from grain originating beyond), to Newport News and Norfolk, Va. (for export), avena, rolled wheat, rye flour, crushed wheat, feed, rye or wheat, wheat flour and articles taking same rates, 22 cents, and sprouted barley, starch, barley sprouts, corn flour, hulls, barley and oats, rolled and ground oats, and articles taking same rates, 21 cents.

Also I. C. C. B-2636, April 15. Grain (except wheat) flour, malt, flaxseed, millet seed, oatmeal, oil cake and oil meal from Post Falls, Ida., to Rathdrum, Idaho, 5 cents; Newport, Wash., 12 cents; Dalkena, Wash., 12 cents; Usk, Wash., 15 cents; Cusick, Locke, Wash., 15 cents; Ruby, Wash., 16 cents; Lost Creek, Wash., 17 cents; Ione, Wash., 18 cents; Metaline Falls, Wash., 19 cents (R).

Also Supplement 118 to I. C. C. No. A-9945, April 15. Grain and flour between St. Paul, Minneapolis, Minnesota Transfer, and Stillwater, Minn., and Trevino, Savoy, Maxwell, Durand, Red Cedar, Meridan, Caryville, Lufkin Siding, Porter's Mills, Eau Claire, Badger Mills, Chippewa Falls, Dunnville, Downsville, and Menominee, Wis., 10 cents; malt between Winona, Minn., and La Crosse, Wis., 6 cents.

CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA.—Supplement 3 to I. C. C. No. 3868, April 26. Grain products, by-products, grain in sacks, from St. Paul, Minneapolis, and Minnesota Transfer, Minn., and points taking same rates, to Brockville, Ont., 25 cents; Cacouna, P. Q., 33 cents; Lindsay, Ont., 24½ cents; Peterboro, Ont., 24½ cents; Sherbrooke, Stanstead, P. Q., 25 cents; Windsor, Ont., 16½ cents, and numerous other rates to Canada points.

Also Supplement 6 to I. C. C. No. 3837, April 21. Corn, rye, oats, barley and articles taking same rates, from Atchison, Kan., Kansas City, Mo., Leavenworth, Kan., Nebraska City, Neb., St. Joseph, Mo. (when originating beyond), to Doon, Iowa, Luverne, Mankato, Mendota, Pipestone, Minn., Sibley, Ia., Sioux Falls, S. D., Worthington, Minn., 11 cents.

MISSOURI PACIFIC.—I. C. C. No. A-2297, April 30. Flour from Great Bend, Kan., to Neosho, Mo., 20 cents.

Also Supplement 13 to I. C. C. No. A-2058, April 22. From Baxter, Colo., to Little Rock, Ark., and rate points, flour, wheat, 39 cents; cornmeal, 38 cents; flaxseed, 53 cents; hemp seed, 56 cents; corn, 38 cents; alfalfa, feed and meal (minimum weight 30,000 lbs.), 35 cents; to Fort Smith and Van Buren, Ark., and rate points, flour and wheat, 35 cents; cornmeal 35 cents; corn, 35 cents; flaxseed, 51 cents; hemp seed, 54 cents; alfalfa, feed and meal (minimum weight 30,000 lbs.), 32 cents; to Texarkana, Ark., flour and wheat, 45 cents; cornmeal and corn, 43 cents; flaxseed, 54 cents, and hemp seed, 57 cents; alfalfa feed and alfalfa meal (minimum weight 30,000 lbs.), 38 cents.

NORTHERN PACIFIC.—Supplement 11 to I. C. C. No. 4190, April 10. Grain, flaxseed, flour, mill feed, and articles taking same rates from Three Forks, Mont., to Chicago, Peoria, Quincy, Ill., Milwaukee and Manitowoc, Wis., 42½ cents.

Also I. C. C. No. 5281, April 20. From Red Lodge, Bridger (R), and Billings, Mont., to East San Pedro, Redondo, San Diego, San Pedro, 48 cents; San Francisco, Oakland (Long Wharf), 47½ cents; from Santa Barbara, Cal., 65 cents; (applies on grain, viz.: wheat, flour, bran, oat groats, mill feed, shorts and middlings).

Also Supplement 4 to I. C. C. No. 5219, April 16. Flour from Glasgow, Higginsville, Marshall, Mexico, Odessa, and Slater, Mo., to Wahpeton, 24½ cents, and to Fargo, N. D., 25 cents.

Also Supplement 10 to I. C. C. No. 5046, April 15. Flour and millfeed from Lewiston, Ida., to Spokane, Wash., and Walla Walla, Wash., Pendleton and Athena, Ore., 13¾ cents (R).

OREGON-WASHINGTON R. R. & NAVIGATION Co.—Supplement 21 to I. C. C. No. 104, April 3. Grain and grain products to Faith, Isabel, S. D., New Leipzig, Mott, New England, N. D., from Anaconda, Mont., 40 cents; flax and millet seed, 40 cents; Deer Lodge, Mont., 40 cents; Hilger, Mont., 32 cents; Ismay, Mont., 23 cents; Macomb, Mont., 23½ cents; also to numerous other Mont., N. D., and S. D. points.

Also Supplement 21 to I. C. C. No. 104, April 3. Poultry food, between Boise, Idaho, and Portland, East Portland, Albina, St. Johns, Kenton, and North Portland, Ore., 40 cents.

Also I. C. C. No. 226, May 1. Wheat (for export) from East Spokane, Spokane, Wash., 19½ cents; Palouse Falls, Wash., 17½ cents; Pendleton, Ore., 16¼ cents; to Seattle and Tacoma, Wash. (for export to Central and South America, Hawaiian Islands, Asiatic Ports, Philippine Islands, Australia, New Zealand and Fiji Islands or beyond).

DULUTH, SOUTH SHORE & ATLANTIC.—Supplement 1 to I. C. C. No. 2395, April 3. To Baltimore, Md., for export from Duluth, Minn., Superior and Superior East End, Wis., barley, oats, corn, rye and speltz, 19 cents; wheat, 21½ cents; and malt, 19½ cents; to New York (for export) from same points, barley, oats, corn, rye, speltz, 20½ cents; wheat, 23 cents; and 22½ cents to Philadelphia (for export), barley and oats, 20½ cents; corn, rye, speltz, 21½ cents; flax seed, 33 cents (A); wheat, 24 cents; malt, 22.2 cents (also rates to numerous other Canada and eastern and New England points).

Also I. C. C. No. 2472, April 3. Flaxseed from Duluth, Minn., Superior and Superior East End, Wis., to Allegheny, Pa., Buffalo, N. Y., 22 cents; Cleveland, Ohio, 19½ cents, and to Detroit, Mich., and Toledo, Ohio, 17½ cents (A).

CHICAGO, ROCK ISLAND & PACIFIC.—Supplement 11 to I. C. C. No. C-9271, April 19. Wheat coming from C., R. I. & P. or connections from St. Paul, Minneapolis, Minnesota Transfer, Minn., to Dundas and Faribault, Minn., 4 cents (R). State March 20. Interstate, April 19.

Also Supplement 3 to I. C. C. No. C-9408, RR13207-F. From Kansas City, St. Joseph, Mo., Armourdale, Atchison, Leavenworth, Kan., Council Bluffs, Iowa, Omaha and South Omaha, Neb., to Mann, Spencer, Unity, Colby and Abbottsford, Wis., wheat, 20¾ cents; corn, 19¾ cents, effective April 15.

Also Supplement 16 to I. C. C. No. C-8765, April 28. Bran from Enterprise, Kan., to Council Grove, Kan., 6½ cents. State Kansas, March 10. Interstate, April 28.

Also Supplement 3 to I. C. C. No. C-9414. Linseed meal and cake from Fredonia, Kan. to Wathena, Kan., 13 cents; Enterprise, Kan., 12 cents; Lincoln, Neb., 16½ cents; Burlington, Colo., 21½ cents. (Numerous rates to Kan., Neb. and Colo. points) April 28 (except Kansas state, March 10).

Also I. C. C. No. C-9473, May 2.—Flour from Minneapolis, Minnesota Transfer, St. Paul, South St. Paul, to Joplin, Mo., and Pittsburg, Kan., 21 cents.

Also Supplement 16 to I. C. C. C-8765, April 28. Flour from Salina, Kan., to Burlington, Chanute, Kan., 11 cents; Council Grove, Kan., 7 cents; Hartford, Kan., 11 cents. Bran from Caldwell, Kan., to Chanute, Kan., 10 cents.

Also Supplement 73 to I. C. C. No. C-6948, April 15. Between Devol, Grandfield, Loveland, Hollister, Frederick, Humphreys, Altus, Okla., and Chicago, Ill., wheat 30 cents; corn, 28 cents; Peoria, Ill., wheat, 28½ cents; corn, 26½ cents; Mississippi River, wheat, 27 cents; corn, 25 cents.

WABASH, CHESTER & WESTERN.—I. C. C. No. 271, May 1. Flour made from grain only, bran and middlings, from Chester, Percy, Pinckneyville, and Steeleville, Ill., to Paducah, Ky., 10½ cents.

WABASH.—I. C. C. No. 3215, May 1. From Atchison, Kan., Council Bluffs, Iowa, Elwood, Kan., Kansas City, Mo., Kansas City, Kan., Leavenworth, Kan., Omaha, Neb., and St. Joseph, Mo. (when from beyond) to Newport News and Norfolk, Va. (for export), buckwheat flour, rye flour, rolled rye, wheat flour, pearl barley, etc., 22 cents; alfalfa feed and meal, corn meal, bran, etc., 21 cents.

Also I. C. C. 3203, April 6. Flaxseed from Chicago, Ill., to Detroit, Mich., 7½ cents (R); Allegheny, Pa., Buffalo, N. Y., 12 cents; Cleveland, Ohio, 9½ cents; Dayton, Ohio, 6 cents; Fort Wayne, Ind., 4½ cents; Pittsburgh, Pa., 12 cents; South Bend, Ind., 4½ cents; Toledo, Ohio, 7½ cents.

SOUTHERN RY.—I. C. C. C-1524, April 21, 1913. expires Nov. 30, 1913. Flour from Belleville, Germantown, and Mount Carmel, Ill., Princeton and Evansville, Ind., to Newport News, Va. (for export), 13 cents, applicable only when the grain from which the flour is milled originates from points beyond St. Louis, Mo., and moves into milling points by way of St. Louis, East St. Louis, and Southern Ry., under milling in transit rules, published in tariffs I. C. C. No. C-1480 and C-1494.

CHICAGO & NORTHWESTERN.—Supplement 4 to I. C. C. 7402, April 25. Between Blair, Neb., and Missouri Valley, Iowa, wheat, 5 cents; corn, 4 cents; Loveland, Honey Creek, and Crescent, Iowa, wheat, 5.95 cents; corn, 5.1 cents; California Junction, Iowa, wheat, 5 cents; corn, 4 cents.

Also Supplement 3 to I. C. C. 7317, April 19. Grain and grain products and flaxseed when originating at points beyond, and will also apply on products manufactured from grain or seeds originating beyond, to East St. Louis, Ill., from Omaha, South Omaha, Neb., Council Bluffs, Iowa, and Missouri Valley, Iowa; flaxseed, flaxseed screenings, millet seed, flax bran, flax shives, and ground flaxseed, 14½ cents; wheat, buckwheat, buckwheat flour, pearl barley, prepared flour, rolled rye, rye flour, and wheat flour, 13½ cents; corn, barley, rye, oats, kaffir corn, alfalfa meal, barley meal, bran, brewers' grits, brewers' meal, brewers' or distillers' dried grain, corn flour, cornmeal, gluten feed, gluten meal, grain screenings, hominy feed, linseed meal, malt, malt sprouts, middlings, milo maize, oatmeal, rolled oats and shorts, 12½ cents.

CANADIAN NORTHERN.—Supplement 5 to I. C. C. No. W-146, April 1. Flour, grain, millstuffs, flax and millet seeds, between Duluth, St. Paul, Minn., and

Beaudette Pitt, Graceton, Williams, Roosevelt, Swift, Warroad and Longworth, Minn., 15 cents.

CHESAPEAKE & OHIO.—I. C. C. No. 5409, April 4. Grain and grain products from Cincinnati, Ohio, to Charleston, W. Va., 8½ cents (A); Gauley, W. Va., 10½ cents; Huntington, W. Va., 7½ cents.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE.—Supplement 3 to I. C. C. No. 2736, April 1. Grain and grain products from Minneapolis, St. Paul, Minnesota Transfer, Minn., and New Richmond, Wis., to Steels, Eliot, Iron River, Hopkins, Wis., and other Wisconsin points, 10 cents (R).

Also Supplement 14 to I. C. C. No. 3128, May 1. Cornmeal from Minneapolis, St. Paul, Minnesota Transfer, Duluth, Minn., and Superior, Wis., to Fort William, Port Arthur and Westford, Ont., 24 cents (R).

ATCHISON, TOPEKA & SANTA FE.—Supplement 9 to I. C. C. No. 6043, April 30. Corn and oats from Trinidad, Colo., to Raton, N. M., 10 cents.

PENNSYLVANIA R. R.—Supplement 3 to I. C. C. No. G-03785, April 15. Grain products from Buffalo, N. Y., Erie, Pittsburgh, Pa., Wheeling, W. Va., and rate points to New Orleans, La., LCL 37 cents; flour in sacks, not paper, LCL 30½ cents.

Also I. C. C. No. G-04276, April 15. Lake grain (for export) from Erie, Pa., and Buffalo, N. Y., to New York, N. Y., wheat, 5½ cents; corn, 4¾ cents; rye, 5¼ cents; oats, 3.7 cents; flaxseed, 5½ cents; barley, 4¾ cents; Philadelphia, Pa., and Baltimore, Md., wheat, 5.2 cents; rye, 4.95 cents; corn, 4.45 cents; oats, 3.5 cents; flaxseed, 5.2 cents; barley, 4.55 cents per bushel.

UNION PACIFIC.—Supplement 10 to I. C. C. No. 2249, April 15. Bran, chopped feed, grain screenings, shorts, oat hulls, oat dust and middlings, from Enterprise, Kan., to Burlington, 9¼ cents (R); Council Grove, 6½ cents; Emporia, 7 cents, and Parsons, Kan., 11 cents; flour from Salina, Kan., to Americus, 11½ cents (R); Dunlap, 10½ cents (R); Burlington, 12½ cents; Council Grove, 7 cents, and Emporia, Kan., 9 cents.

Also Supplement 1 to I. C. C. No. 2548, March 15. State; Interstate, April 15. Between Julesburg, Colo., and Kansas City, Mo., Leavenworth, Kan., Atchison, Kan., St. Joseph, Mo., wheat, 21.65 cents; corn, 18.2 cents; oil meal, 20 cents; flaxseed, 28 cents; millet seed, 28 cents. Between Julesburg, Colo., and Omaha, Neb., wheat, 16.15 cents; corn, 12.75 cents; oil meal, 15 cents; flaxseed and millet seed, 21 cents; between Julesburg, Colo., and Denver, Colo., wheat, 22 cents (A); corn, 17 cents; between Julesburg, Colo., and Cheyenne, Wyo., wheat, 21.5 cents; corn, 16.75 cents; oil meal, 16.75 cents.

CHICAGO & ALTON.—Supplement 11 to I. C. C. No. A-297, May 1. Wheat and flour between Hannibal, Mo., and Chicago, Ill., 8 cents; Peoria, Ill., 6 cents; between South Cedar City, Mo., and Chicago, Ill. Group, flax, Hungarian and millet seed, 16 cents; wheat and flour, 12 cents; corn, flour, oats and barley, 11 cents; rye, 11½ cents; between South Cedar City, Mo., and Peoria, Ill., flax, Hungarian and millet seed, 13½ cents, wheat and flour, 10½ cents; rye, 10 cents; between South Cedar City and East St. Louis, Ill., flax and Hungarian and millet seed, 11 cents; wheat and flour, 9 cents; corn, oats and barley, 8 cents; rye, 8½ cents.

ERIE.—I. C. C. No. 10325, April 15. Ex-lake at and east of Buffalo, N. Y., to Baltimore, Md., for export only, barley, 4.55 cents; corn, 4.45 cents; flaxseed, 5.2 cents; oats, 3.5 cents; rye, 4.95 cents; wheat, 5.2 cents per bushel (R.).

Also I. C. C. No. 10324, April 15. Ex-lake at and east of Buffalo, N. Y., to Port Richmond, Philadelphia, Pa. (for export only), barley, 4.55 cents; corn, 4.45 cents; flaxseed, 5.2 cents; oats, 3.5 cents; rye, 4.95 cents; wheat, 5.2 cents per bushel (R.).

Also I. C. C. No. 10321, April 15. Ex-lake at and east of Buffalo, N. Y., to Long Dock, Jersey City, N. J., for export only, barley, 4.75 cents; corn, 4.75 cents; flaxseed, 5½ cents; oats, 3.7 cents; rye, 5.25 cents; wheat, 5½ cents per bushel (R.).

Also I. C. C. No. 10323, April 15. Ex-lake at and east of Buffalo, N. Y., to New York City, barley, 5¼ cents; corn, 5¼ cents; flaxseed, 5½ cents; oats, 4 cents; rye, 6 cents; wheat, 6½ cents.

Also I. C. C. No. 10322, April 15. Ex-lake at and east of Buffalo, N. Y., to Boston, Mass., for export only, barley, 4.75 cents; corn, 4.75 cents; flaxseed, 5½ cents; oats, 3.7 cents; rye, 5¼ cents; wheat, 5½ cents per bushel.

GRAND TRUNK.—I. C. C. No. 1895, April 30. Grain and grain products from Buffalo, Black Rock and Suspension Bridge, N. Y., to North Sydney, N. S., 22 cents.

Also I. C. C. No. 1890, April 18. Grain from Collingwood, Depot Harbor, Goderich, Kingston, Meaford, Midland, Point Edward, Port Colborne, Sarnia and Tiffin, Ont., and Port Huron, Mich., to Boston, Mass., applicable only on traffic consigned through to British and foreign countries except Newfoundland and St. Pierre Miquelon, wheat 5½ cents; flax, 5½ cents; rye, 5¼ cents; corn, 4¾ cents; barley, 4¾ cents; oats, 3.7 cents per bushel.

Also I. C. C. No. 1891, April 18. Grain Ex-lake from Collingwood, Depot Harbor, Goderich, Kingston, Meaford, Midland, Point Edward, Port Colborne, Sarnia and Tiffin, Ont., and Port Huron,

Mich., to Portland, Me., applicable on traffic consigned through to British and foreign countries except Newfoundland and St. Pierre Miquelon, wheat, 5 cents; flax, 5 cents; rye, 4¾ cents; corn, 4¼ cents; barley, 4¼ cents and oats, 3.45 cents.

NEW YORK CENTRAL & HUDSON RIVER.—I. C. C. No. B-18577, April 15. Wheat, 5½ cents; corn, 4¾ cents; rye, 5¼ cents; barley, 4¾ cents; oats, 3.7 cents; flaxseed, 5½ cents per bushel (R.) from Oswego, N. Y., to New York City (for export).

Also I. C. C. No. B-18569, April 15. Wheat, 5½ cents; corn, 4¾ cents; rye, 5¼ cents; barley, 4¾ cents; oats, 3.7 cents; flaxseed, 5½ cents per bushel (R.) from Buffalo, N. Y., to New York, N. Y. (for export).

Also I. C. C. No. B-18570, April 15. Wheat, 5½ cents; corn, 4¾ cents; rye, 5¼ cents; barley, 4¾ cents; oats, 3.7 cents; flaxseed, 5½ cents per bushel from Buffalo, N. Y., to East Boston, Mass. (for export) (R.).

Also I. C. C. No. B-18571, April 15. Wheat, 5.2 cents; corn, 4.45 cents; rye, 4.95 cents; barley, 4.55 cents; oats, 3.5 cents; flaxseed, 5.2 cents per bushel (R.) from Buffalo, N. Y., to Philadelphia, Pa. (for export).

Also I. C. C. No. B-18580, April 15. Wheat, 6½ cents; corn, 5¼ cents; rye, 6 cents; barley, 5¼ cents; oats, 5 cents; flaxseed (R.), 5½ cents per bushel, from elevators at Buffalo, N. Y., to Middletown and Port Jarvis, N. Y.

LAKE ERIE & WESTERN.—I. C. C. No. 2369, April 18. Elevator dust, oat clippings, oat hulls and grain screenings from Noblesville, Ind., to Owensboro, Ky., 8 cents.

Also I. C. C. No. 2368, RR. 516-E. To Chicago, Ill., from Arrowsmith, Bloomington and Brokaw, Ill., wheat, 8.7 cents; grain (except wheat), 7.9 cents; Carlock, Ill., wheat, 9.1 cents; grain (except wheat), 8.3 cents; also rates to numerous other Illinois points. Effective, State, March 17; Interstate, April 18.

CHICAGO, BURLINGTON & QUINCY.—I. C. C. No. 10762, May 1. Flour from St. Paul, Minneapolis and Minnesota Transfer, Minn. to South Cedar City, Mo., 20½ cents.

Also I. C. C. No. 10763, May 1. From Atchison, Leavenworth, Kan., Kansas City and St. Joseph, Mo. (when originating beyond or manufactured at those points from grain, seeds or other ingredients originating beyond) to Newport News and Norfolk, Va. (for export), avena, cracked wheat, cream of wheat, flour made from grain only, pearl barley, pearl wheat, Pillsbury's best cereal and wheatlet (granulated wheat cereal), 22 cents, and bran, cracked corn, feed, oats, feed, corn, malt, starch, etc., 21 cents.

Also Supplement 9 to I. C. C. No. 10272, April 25. Feed mixed, live stock, glucose and molasses from Clinton and Lyons, Ia., to West Roodhouse, Whitehall, Ill., 8.6 cents; Wrights, Ill., 8.7 cents; Greenfield, Rock Bridge, Ill., 8.8 cents; Franklin, Ill., 8.4 cents; Waverly, Ill., 8.6 cents; Atwater and Barnet, Ill., 8.9 cents (R.) and numerous other Illinois points.

Also I. C. C. No. 10761, April 24. Flour only from Burlington, Davenport and Keokuk, Ia., to Baltimore, Md., 20 cents; Boston, Mass., 22 cents; New York, N. Y., 22 cents, and Philadelphia, Pa., 21 cents (applies on shipments for export).

MISSOURI, KANSAS & TEXAS.—I. C. C. No. A-3830, May 1. To Norfolk and Newport News, Va., for export, from Kansas City, Mo., when originating west thereof and south of the southern state line of Nebraska, buckwheat, flour, pearl barley, potato flour, prepared flour, rye, flour, rye, rolled wheat flour and chicken feed, 22 cents; alfalfa feed, meal, brewer's grits and meal bran, corn, flour and meal, and articles taking same rates, 21 cents.

Also Supplement 2 to I. C. C. No. A-3742, RR. 4096-C. Between East St. Louis, Alton, East Hannibal, Ill., St. Louis, Hannibal, Mo., and Arkansas City, Silverdale, Kan., Hardy and Frankfort, Okla., corn, 18 cents; linseed meal, 19¾ cents; wheat, 21½ cents; flaxseed, 24½ cents; millet seed, 24 cents; hemp seed, 28¼ cents; Grainola, Foraker, Blackland, Kyger, Myers and Pawhuska, Okla., same rates; between Peoria, Ill., and same points, corn, 19½ cents; wheat, 23 cents (R.); between Chicago, Ill., and same points, corn, 21 cents; wheat, 24½ cents (R.). Effective May 1.

LEHIGH VALLEY.—I. C. C. No. B-9114, April 15. Wheat, 5½ cents; rye, 5¼ cents; corn, 4¾ cents; barley, 4¾ cents; oats, 3.7 cents; flaxseed, 5½ cents per bushel (all for export), from Buffalo, N. Y., to Boston, Mass. (all reductions).

Also I. C. C. No. B-9113, April 15. From Buffalo, N. Y., to Port Richmond, Philadelphia, Pa. (for export), wheat, 5.2 cents; rye, 4.95 cents; corn, 4.45 cents; barley, 4.55 cents; oats, 3½ cents; flaxseed, 5.2 cents per bushel (R.).

Also I. C. C. No. B-9109. From Buffalo, N. Y., to stations taking Boston rate bases, wheat, 8 cents; rye, 7¼ cents; corn, 7½ cents; barley, 6½ cents; oats, 4½ cents, and flaxseed, 8 cents per bushel; to stations taking New York rate bases, wheat, 6.5 cents; rye, 6 cents; corn, 5¼ cents; barley, 5¼ cents; oats, 4 cents, and flaxseed, 5½ cents per bushel (R.).

Also I. C. C. No. B-9111, April 15. Ex-lake grain from Buffalo, N. Y., to Boston, Mass., wheat, 8 cents; rye, 7½ cents; corn, 7½ cents; barley, 6½ cents; oats, 4½ cents; flaxseed, 8 cents per bushel.

Also I. C. C. No. B-9112, April 15. From Buffalo, N. Y., to New York, N. Y. (for export), wheat 5½ cents; rye, 5¼ cents; corn, 4¾ cents; barley, 4¾ cents; oats, 3.7 cents; flaxseed, 5½ cents per bushel (all R.).

DELAWARE, LACKAWANNA & WESTERN.—I. C. C. No. 9235, April 15. From Buffalo, N. Y., to Baltimore, Md., and Philadelphia, Pa., (for export) wheat, 5.2 cents; corn (shelled), 4.45 cents; rye, 4.95 cents; barley, 4.55 cents; oats, 3½ cents, and flaxseed, 5.2 cents per bushel (R.); to Boston, Mass., and N. Y. Lighterage Sta., N. J., and points within N. Y. Harbor lighterage limits (for export), wheat, 5½ cents; corn (shelled), 4¾ cents; rye, 5¼ cents; barley, 4¾ cents; oats, 3.7 cents, and flaxseed, 5½ cents per bushel (R.).

Also I. C. C. No. 9237, April 15. From Buffalo, N. Y., to New York, Brooklyn, N. Y., and N. Y. Harbor, wheat, 6½ cents; corn (shelled), 5¼ cents; rye, 6 cents; barley, 5¼ cents; oats, 4 cents, and flaxseed, 5½ cents (R) per bushel; to Baltimore rate points, wheat, 6½ cents; corn (shelled), 5¼ cents; rye, 6 cents; barley, 5¼ cents; oats, 3¾ cents, flaxseed, 5½ cents per bushel (these rates will not apply to Baltimore proper); to Boston, Mass., and rate points, wheat, 8 cents; corn (shelled), 7½ cents; rye, 7¾ cents; barley, 6½ cents; oats, 4½ cents; flaxseed, 8 cents per bushel.

W. H. HOSMER, AGENT FOR SANTA FE, ILL. CENTRAL, ETC.—Supplement 8 to I. C. C. No. A-357, May 1. Linseed oil between Springfield, Ill., and St. Louis, Mo. Groups and Chicago, Rockford, Waukegan, Ill. Groups, 13 cents; Milwaukee, Wis. Group, 15 cents.

Also I. C. C. No. A-398, May 1. Grain, bran, cornmeal, flour (corn, rye and wheat and hominy feed), from Evansville, Ind., Henderson, Ky., Jefferson-

ville, Ind., Louisville, Ky., Mt. Vernon, Ind., Owensboro, Ky., and New Albany, Ind., to shipside Galveston, Tex., Gretna, La., Texas City, Tex., Westwego, La., Pensacola, Fla., Mobile, Ala., New Orleans, La. and other Gulf ports (for export), 10½ cents.

Also Supplement 4 to I. C. C. No. A-387, March 22. Flour in barrels or sacks, bran and feed, when mixed with flour, from St. Paul, Minneapolis, Minnesota Transfer, Minn., and points taking same rates to Memphis, Tenn., 23½ cents; New Orleans, La., and points taking same rates, 27½ cents; Jackson and Meridian, Miss., 32½ cents.

ILLINOIS CENTRAL.—Supplement 1 to I. C. C. No. A-8346, RR. 347-I, March 28. From Council Bluffs, Omaha and South Omaha, Neb., when originating beyond to Evansville, Ind., wheat, 13 cents; wheat flour and articles taking same rates, 16½ cents; corn, rye, oats and barley, 12 cents; bran, corn meal, 15.5 cents. Also numerous other rates.

WESTERN MARYLAND.—I. C. C. No. 4208, April 9. Flour from Frederick, Maryland, to Troy, N. Y., 13 cents (R.).

WEST SHORE.—I. C. C. No. B-7426, April 15. Wheat, 5½ cents; corn, 4¾ cents; rye, 5¼ cents; barley, 4¾ cents; oats, 3.7 cents, and flaxseed 5½ cents per bushel (R), from Buffalo, N. Y., elevators to Boston, Mass. (for export).

GREAT NORTHERN.—Supplement 25 to I. C. C. No. A-3429, April 15. Grain, flour, flax, or millet seed between St. Paul, Minneapolis, or Minnesota Transfer, Minn., Duluth, Minn., or Superior, Wis., and Fox Roseau, 12½ cents; Lucan, 13 cents; Salol, 13 cents, and Warroad, Minn., 13½ cents (R).

DETROIT & TOLEDO SHORE LINE.—I. C. C. No. 480, State March 13, Interstate April 3. Malt and malt sprouts from Detroit, Mich., to Cincinnati, Ohio, 8 cents; Jeffersonville, Ind., 9 cents; Louisville, Ky., 10 cents; New Albany, Ind., 9 cents.

NORTH AMERICAN EXPORT GRAIN ASSOCIATION

The first rule of the recently organized North American Export Grain Association was unanimously adopted on March 25.

This rule is one of great importance to the export trade in grain, as it is intended to revolutionize the payment feature of foreign contracts, and provides that:

"On and after May 1, 1913, all sales of grain to the United Kingdom by members of the association shall be for payment by cash in London in exchange for shipping documents."

The members of the association have reported to the Executive Committee that they have notified their correspondents in the United Kingdom accordingly. The change from the old sixty days' sight draft basis has been steadily resisted by British buyers although it has been the rule to sell for cash to continental buyers for some years past. A great portion of the European grain trade with America is done upon the London form of contract, which in many respects has been quite satisfactory to American sellers, but the London Corn Trade Association has always refused to alter the payment clause to suit American notions, although sixty day drafts have long been obsolete, having been based upon the old days of long sailing voyages.

All of the exchanges in the United States and Canada having export interests, are members of the Association, and as such, bind their exporters, who are themselves contributing members and sustain the work. The latest accession to the membership is the New Orleans Board of Trade, which has named C. B. Fox, a prominent local exporter, as its member of the governing council. The American exporters are quite enthusiastic over the work of the Association, which they think should have been formed a generation earlier, so that some of the problems of the trade might have been solved by their predecessors, who frequently sustained heavy losses that might have been avoided by unity of interest and effort.

ASSOCIATION BRIEFS

President Lee G. Metcalf of the Illinois Grain Dealers' Association has been appointed by Secretary of State Woods as a delegate to represent that organization at the 8th Annual Conference of Weights and Measures, to be held in Washington, D. C., May 14 to 17, 1913.

At an informal meeting of the Illinois Grain Dealers' Association held recently in the St. Nicholas Hotel, Springfield, Illinois, a resolution was unanimously passed endorsing the platform of the Illinois Highway Improvement Association adopted at a state convention held at Peoria, September 27, 1912.

The organization of the Farmers Grain Dealers' Association of Kansas was effected recently at Hutchinson, Kan., and the following officers were elected: President, J. A. Lyons of Langdon; Vice President, D. Sommers of Abilene; Secretary-Treasurer, G. W. Lawrence of Larned; Directors, A. C. Bailey of Kinsley, A. D. Einsel of Greensburg, G. D. Estes of Stafford and Lee Miller of McPherson. The Board of Directors met and issued a formal call for the next meeting of the new association to be held at Larned on May 30.

The following individuals and firms have joined the Kansas Grain Dealers' Association since January 1, 1913: J. W. Craige Grain Company, Wichita; W. L. Huffman, Gueda Springs; Force Elevator Company, Wheaton; Rixon Grain Company, Greensburg; Joy Grain Company, Greensburg; S. E. Cave & Sons, Sublette; Ellis Farmers Grain & Live Stock Company, Ellis, Neb.; A. H. Ling, Jetmore; Kemper Grain Company, Wichita; E. W. Koesling, Bloomington; W. H. Kelly, Edgerton; Farmers' Co-operative Merc. Co., Plainville; S. A. Hutchinson, Strawn; Glasco Grain Company, Glasco; J. B. Jennings, Jennings.

The Minier Grain Company of Minier, Ill., and Nelson & Frazier of DeKalb were received as new members of the Illinois Grain Dealers' Association during the past month. Secretary Strong also reports the following changes in the Illinois grain trade for March: Philadelphia (mail Virginia), Ross Brothers succeed E. B. Conover; Carlinville, C. Feiker & Co., succeed C. R. Aden; Lyndon, Ralph Allen, succeed Allen & Overly; Joy Prairie (mail Jacksonville), Farmers' Elevator Co. succeeds W. C. Calhoun; Stockton, R. L. Coomber succeeds J. H. Rosenstiel; Kent (mail Freeport), J. H. Rosenstiel; Fitchmoor (R. F. D. Mendota), Fitchmoor Gr. Co. succeeds August Funfsinn; Maple Park, Nelson & Fraser succeed John Glidden; Roscoe (mail Marenge), J. H. Patterson & Co. succeed Hutchins & Whiting; Archie (Sidell P. O.), no dealer; elevator closed; Wapella, J. M. Greene & Son succeed J. M. Greene & Co.; Maroa, A. J. Francis succeed Duvall Grain Co.; Symerton, E. W. Ponting succeed, A. M. Hilton.

ASSOCIATIONS

THE CONVENTION CALENDAR

June 10 and 11—Illinois Grain Dealers' Association at Chicago, Ill. Headquarters La Salle Hotel.

June 24, 25 and 26—National Hay Association at Peoria, Ill. Headquarters Jefferson Hotel.

October 16, 17 and 18—Grain Dealers' National Association at New Orleans, La.

INDIANA GRAIN DEALERS' ASSOCIATION

Following the recent adjournment of the Indiana General Assembly, Secretary Charles B. Riley of the Indiana Grain Dealers' Association sent a circular letter to the members of that organization, discussing the legislation enacted and bills of interest to grain men. The letter reads as follows:

1. The bill relating to stationary steam engineers was introduced in each house, at the instance of some unemployed engineers, who desired the creation of a Board of Examiners, to pass on the qualification of engineers. The bill came up for hearing in the House first, and was defeated 73 to 13. The companion bill, pending in the Senate, was then amended, and upon a final vote was defeated 29 to 6, so that settled the matter for the time, though we may expect it to bob up any session, as it has every session during the past ten years.

2. The Wild Onion and Garlic Bill passed both houses by a strong vote and was finally vetoed by Governor Ralston, at the instance of farmers who didn't want it to become a law, and after a conference with Prof. George I. Christie of Purdue. It is now up to the grain dealers and millers to buy the grain, mixed with onions and garlic, on sufficiently wide margins to insure them against loss.

3. A bill providing for threshing machine operators to have a lien on grain and seed threshed, to secure the payment of their charges for threshing, passed the House and we succeeded in having it so amended in the Senate that it required notice to prospective buyers. Then it died, and we are rid of it for the time being.

4. A bill known as a Uniform Bill of Lading Measure passed the House and died in the Committee for the Senate. We were opposed to the measure, as we anticipate early action by Congress on a bill that should be duplicated in this state, and can be, now that the proposed bill of lading measure failed to pass.

5. A bill passed both houses, and is now in the hands of the governor, providing that when the question of the weight of a shipment is in dispute between the shipper and the carrier, the question may be submitted to the Railroad Commission of Indiana; the findings of the Commission to be prima facie evidence of the weight. We are greatly interested in this, as under the present system the shipper is compelled to accept the verdict of the carrier or take the matter into court. This bill has not yet been signed by the governor.

6. A fire marshal law was enacted and approved by the governor. We haven't studied all the features of this measure, but believe it will be of great benefit to honest insurers of property, as the fire marshal will have a corps of detectives and inspectors to investigate causes of fires, and will prosecute, with vigor, any incendiarism that may develop. It is understood by insurance companies that more than one-fourth of the fire losses are traceable to criminal incendiarism, so that anything that will tend to reduce this should also reduce the cost of insurance to some extent.

7. Our association assisted materially in bringing about the law that provides for vocational education, to be conducted in the common schools of the state, thus giving every boy and girl an opportunity to learn something of real value in complete equipment for their life work.

8. The Public Service Commission came into existence, or will May 1 next. The grain trade is interested in the measure only in a general way, same as other business interests, except that such houses as perform public elevator or warehouse service are brought under its provisions and are subject to supervision by the commission.

9. The powers of the Railroad Commission have been so extended that they now have complete jurisdiction over freight rates, service, etc., of electric interurban roads. Formerly they had no jurisdiction over the freight traffic of such roads until the gross receipts for freight equaled 33.1-3 per cent of the entire receipts of the road, and that didn't obtain on any road in the state.

10. House Bill 330, which singled out grain dealers, millers and coal dealers as special targets for anti-trust legislation, died in the Senate Committee, after passing the House by a good majority.

The following new commissions and boards were created: Public Service commission of five members; a Stallion Enrollment Board of three members; a Panama-Pacific Commission of nine members; a Workmen's Compensation Commission; a Woman's Wage Commission; a Drainage Law Commission to codify drainage laws; a Gettysburg Commission.

The state tax levy for benevolent institutions was increased from 5 cents to 10 cents per \$100, and the educational institutions from 2¾ cents to 7 cents. The levy for general fund was reduced from 9 cents to 7 cents, making a net increase for all purposes of 7¼ cents. An inheritance tax law was enacted that will turn into the general fund of the state treasury approximately \$250,000 per annum, which will go far toward reimbursing that fund for the shrinkage of 2 cents per \$100 provided for. Besides which it is understood that the 5 cents levy for benevolent institutions, heretofore in force, fell far short of providing the necessary revenue, and balance was drawn from the general fund. The 10 cents levy now provided for, will doubtless sustain the institutions and no further drain on the general fund, for that purpose will be necessary.

COURT DECISIONS

[Prepared especially for the "American Grain Trade," by J. L. Rosenberger, LL. B., of the Chicago Bar.]

VALIDITY OF SALESMAN'S GUARANTY OF SALES

The correct rule, briefly stated, the Supreme Court of Washington sets forth in *Johns vs. Jaycox*, (121 Pacific Reporter, 854), is that an agent under a general employment to make sales is impliedly authorized to employ only those means for the purpose usual to the business, and that the purchaser cannot safely assume that he has authority to make any extraordinary guaranty or warranty or one beyond the usage of the business in which the agent is employed. The Court has been cited to no authority, and a careful search has revealed none, in which it has ever been held that an agent employed to make sales at wholesale has an implied authority not only to warrant the quality of the thing sold, but also to guarantee that the purchaser will make sales thereof at retail in any particular amount or at any given profit. A more extraordinary guaranty can hardly be imagined. The Court can conceive of no sound principle upon which such a holding could rest. There are decisions which hold that an agent upon whom general authority to sell is conferred will be presumed to have authority to warrant unless the contrary appears, but they really go only to the extent of deciding that the implied power of warranty by the agent upon which a purchaser may rely extends to those things necessary to consummate the contract and usually incident thereto and relating to the title, quality, or condition of the thing sold.

RIGHTS OF PURCHASERS INFLUENCED BY FALSE REPRESENTATIONS

In a suit by a purchaser for a rescission of contract for alleged false representations, the Supreme Court of Alabama lays down these rules: (1) A material false statement, relied upon by the other party in ignorance of its falsity, and which materially influences him to enter into the contract, constitutes a fraud which will authorize a rescission of the contract. (2) The good faith of the party in making such statement is immaterial. (3) Such statement need not be a part of the contract so as to become a warranty, in order to authorize a rescission; and, though the contract is in writing, a verbal false statement with respect to it may be proved for that purpose. (4) An implied warranty gives no right of action for a breach, where the defect complained of was present and visible to the senses, or open to ordinary observation. But this rule has no application where a party relies on a false representation by the vendor with respect thereto, upon which he has a right to rely. (5) As a condition precedent to the exercise of the right of rescission, the party complaining must, if practicable, restore, or offer to restore, to the other party what he has received from him by virtue of the contract, though this rule obviously has no application where it has become impossible for such party to make such restoration by reason of the conduct or default of such other party. Furthermore, the Court holds, in *Hafer vs. Cole*, (57 Southern Reporter, 757) that the right to a rescission on account of fraud does not depend upon the insolvency of the other party, nor upon the inadequacy of an action at law for damages.

RIGHTS AND REQUIREMENTS BETWEEN COMPETITORS OF THE SAME NAME

One of the things that must be regarded as firmly established in the law on the subject of unfair competition, the United States Circuit Court of Appeals, Eighth Circuit, says, is that no person can acquire or transmit to his successors in interest any exclusive right to the use of his own surname as against the right of others of the same name to use theirs honestly and legitimately in the prosecution of any business they may decide to engage in. If, however, confusion would result or the public be deceived or unwarrantable injury be occasioned by the subsequent adoption and use of a name once lawfully appropriated by a predecessor in business, a court of equity will restrain such subsequent use unless some addition or explanation accompanies the use which indicates clearly that the business or product of the later comer is different from that of the original one. If, in addition to that, one in order to escape the charge of fraud must explain to every customer calling for his goods by their natural descriptive and colloquial name the difference between them and those of a competitor entitled to use the same descriptive name, or if one must warn every customer that he is liable to be defrauded by trading with his house, he would in a large degree be de-

prived of his natural and conceded right to trade in his own name; he would be required to advertise and extol his rival's goods in an attempt to sell his own. The Court cannot give its assent to the proposition that would impose upon a second comer such an extraordinary degree of care to protect a rival of the same name. The authorities, as the Court views them, in *Walter Baker & Co. vs. Gray*, (192 Federal Reporter, 921) impose upon him this duty, and no more: He must by means of his packages, the color, display, and legends upon them, or in some other effective way so plainly distinguish his own product from that of his predecessor that purchasers in the exercise of reasonable care cannot be deprived in respect to it. In this way the undoubted right to use one's own name in business is secured and preserved, and the duty to so use it as not to deceive the public or unnecessarily injure a business competitor of the same name, is enforced.

It is reported that the Tri-State Grain Company of Sioux Falls, S. D., has filed a petition in voluntary bankruptcy.

John Mulhall of Sioux City, Iowa, recently pleaded guilty to a charge of selling impure alfalfa seed and was fined \$50.

John E. Philley has been appointed receiver for the Mazeppa Farmers' Elevator and Mercantile Company, Mazeppa, Minn.

A petition has been filed for the adjustment of the financial affairs of Joseph E. Harris, a grain dealer of Olustee, Okla. He gives his liabilities at \$10,705, and his assets at \$10,105.18.

Pleading guilty to having robbed his employer, Jesse C. Stewart, feed dealer at Pittsburgh, Pa., R. H. Leonard was sentenced to three months in jail. The defendant admitted embezzling the sum of \$277.

Mrs. Frances Roban has filed suit against the Car-gill Elevator Company for \$40,000, alleging damages to that extent for the death of her husband, who was killed by the falling of timbers in a grain warehouse that was being dismantled at Kenmare, N. D.

The R. W. Ralls Commission Company, a corporation doing a commission business in broom corn at Wichita, Kan., has filed a voluntary petition in bankruptcy in the Federal Court. The liabilities are placed at \$42,028.67 and the assets at \$4,405.51.

James Gallup and H. P. Nelson of Bassano, Alta., recently were given penitentiary sentences amounting to 18 months and one year respectively, for stealing a large amount of grain from the firm of Leighton & Gilbert, of Calgary, Alta., who operate grain farms near Bassano.

A verdict for the plaintiff in the sum of \$1,071.59 was rendered recently in the case of James Scofield against the Farmers' Elevator Company at Minot, N. D. It was claimed by Mr. Scofield that he held a second mortgage on grain which was taken to the elevator by Philip Kerstein and later sold, when the proceeds were paid to another party.

The Hallet & Carey Company, a commission firm of Minneapolis, Minn., has brought suit against the Boyer Ranch & Livestock Company of Bridger, Mont., for the recovery of damages amounting to \$450. It is alleged that a shipment of wheat consigned to the plaintiff was partially lost in a wreck and that the remainder was in bad condition.

Ole Sund, who was convicted in the District Court of Cavalier County, N. D., on the charge of embezzlement of the funds of the Farmers' Elevator at Osnabrook, N. D., gave himself up to the authorities after the Supreme Court had decided that there was no merit in his appeal to that tribunal. The sentence imposed by the District Court was one and a half years.

J. D. Turner, head of the Feed Control Division of the Kentucky Agricultural Experiment Station, Lexington, Ky., recently made affidavits on 20 warrants for the arrest of Harry Hardke, the Van Leunen Company, the Kenton Hay and Grain Company, J. H. Fedders & Sons and the Cincinnati Grain Company, alleging that they exposed for sale concentrated commercial feeding stuff without being tagged in accordance with the law.

Fred J. Northway of Durand, Mich., has brought suit against Fred F. Hamlin and Fred E. Terry of Durand and the Isbell Brown Company of Lansing, Mich., claiming that the company, which leases the elevator at Durand, will not recognize a mortgage held by Northway. The house was formerly owned by Hamlin & Terry, but later Terry sold his interest to Hamlin, receiving as part of the consideration a mortgage, which was later assigned to Mr. North-

way. It is claimed that when the house was leased by the Isbell Brown Company, the latter failed to recognize the mortgage.

Harry Wise of Boston, Mass., formerly a hay and grain merchant, has been charged by the Federal grand jury with filing a voluntary petition in bankruptcy, and at the same time, it is alleged, he made a false oath that he did not have money with which to pay the necessary fees in connection with his bankruptcy proceedings. It is also charged that the defendant fraudulently concealed the fact that he owned two shares in an investment company, worth \$90.

Thomas C. and Philip Flinger, Findlay, Ohio, operating as the Ohio Grain Company, have brought suit against the Chicago and Erie Railroad Company for \$775.83. The plaintiffs claim overcharges running over a period of 13 years and also a damage claim. The principal item is \$725 for damages alleged to have been suffered by reason of failure of the railroad company to deliver at destination, Fulton, N. Y., corn of the same quality as that which had been shipped from Elgin, Ohio.

Trouble which arose from the alleged illegal selling of grain at the Fairmount Elevator at Cincinnati, Ohio, led to the arrest of Harry Greenup, formerly employed at the elevator by the Car Door Reclamation Bureau, on a warrant sworn out by George Sigmund, Weighing Supervisor for the Cincinnati Chamber of Commerce, charging assault and battery. It is alleged that Greenup swept up grain which had been left in unloaded cars and disposed of it contrary to rigid orders. This is said to have been reported to the Chamber of Commerce by Sigmund, resulting in the dismissal of Greenup who later assaulted Sigmund.

Wm. R. Bach of Bloomington, Ill., attorney for the Illinois Grain Dealers' Association, has begun suit in the Champaign County Circuit Court against the C. C. C. & St. L. R. R. Co. in behalf of C. E. Fletcher of Royal, Ill., to recover \$633, on account of the loss of a car of grain destroyed by fire at the time the elevator at Rumples, Ill., was burned in May, 1912. The case grew out of the fact that Mr. Fletcher loaded a car of corn through the elevator of the Zorn Grain Company, and before the bill of lading was signed, the elevator and corn were burned. Mr. Fletcher filed a claim for the amount, which was refused by the carrier, and this suit is brought to enforce the carrier's liability.

CORN IN NORTHERN WISCONSIN

There was a time, not so very long ago, when people regarded it as impossible to produce corn in northern Wisconsin, but now as is pointed out by E. J. Delwiche of the agricultural experiment station at Ashland, Wis., the corn crop is a paying one wherever the right varieties are grown. There are undoubtedly certain areas in the northern half of the state where, as yet, no profitable variety has become acclimated, but in the greater portion of the state corn can be grown very profitably. The question therefore is not whether corn can be grown but what varieties to plant and how the crop shall be cared for.

Good seed possessing a high germination test is necessary. It is necessary to select the seed early, using right judgment in the selection of ears possessing early maturing characteristics combined with large, strong, leafy stalk. This seed should be cured thoroughly so that it will not carry much moisture when freezing weather comes. Experiments have shown that seed corn can stand very low temperature providing it is sufficiently dry. In order to get such seed it is necessary to "fire-dry." The seed should be placed in some room where artificial heat can be used in curing it. Attention should be given, so as to secure good ventilation along with the artificial heat.

A corn-curing room is a good thing in which to cure corn. An oil stove has been used with good satisfaction for this purpose, and where the room is larger and where there is a large quantity of seed corn to cure then a small box or air-tight stove is good. The essential things are a steady supply of heat during the curing season along with good ventilation. Where only a small quantity of corn is needed, say from five to ten acres, the seed may be cured by hanging up in a spare room or furnace basement. A well ventilated attic in which a chimney passes through is a good place, providing the corn is secured early so as to be dried before severe freezing weather. There are many methods employed to store or suspend the corn during the process of curing. One of the things to look out for is that the curing room be free from mice. If it is not, extra precautions should be taken in methods of hanging the corn.

Another alfalfa contest has been announced by the Canadian Pacific Railway along the same lines as last year's competition. A total of \$1,050 in cash prizes will be awarded.

COMMUNICATED

[We invite correspondence from everyone in any way interested in the grain trade on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

A CORRECTION

Editor American Grain Trade:—The recent notice of incorporation of the Kennard Elevator Company at Kennard, Ind., is a mistake, for we are the only firm handling grain here. Please correct this and oblige.

Yours truly, GEORGE T. BOWEN & SON.
Kennard, Ind.

CHANGE OF LOCATION

Editor American Grain Trade:—Please send our paper to us here, from now on, as we have sold our elevator at Hawk Point, Mo., and have bought one at this place. We sold our original elevator to Landwere Brothers.

Yours truly,
Slater, Mo. COKES ELEVATOR COMPANY.

PLAN TO REBUILD ELEVATOR

Editor American Grain Trade:—We have at present only a small plant that is in bad condition. The growth of our business demands a better equipped house and we are planning now to increase our capital stock, and to rebuild the elevator, putting up a small plant, but one which will have facilities for handling grain both in and out, making this a transit station for tributary business.

Yours truly,
J. D. CHALFANT GRAIN COMPANY.
Clinton, Okla.

HELP FROM BALTIMORE

Editor American Grain Trade:—In response to the appeal sent out from the State of Ohio for aid in the recent unparalleled flood, which devastated many of the larger cities and towns of the State and rendered thousands upon thousands of people homeless, the Baltimore Chamber of Commerce, through its president, sent the following telegram to the Ohio Grain Dealers' Association: "The Baltimore Chamber of Commerce feel deeply with you in the great disaster which has devastated your state and extend our heartfelt sympathy. Authorize you to make sight draft on our treasurer for \$500 if needed, to be applied to relief Ohio flood sufferers, to be dispensed in such channels as you consider most effective."

This generous offer was accepted on behalf of the Ohio Grain Dealers' Association and the people of the state of Ohio in general, and the funds were

turned over to the treasurer of the General Relief Committee, through which no doubt every cent reached the place where it would do its full share in alleviation of want and distress.

Yours truly,
E. C. EIKENBERRY,
President Ohio Grain Dealers' Association.
Camden, Ohio.

ELEVATORS LOOK LIKE TWIN SPIRES

Editor American Grain Trade:—I have just completed the second of two elevators at Saidora, Ill., exactly alike for McFadden & Co. and George Bell. They present an odd appearance from the West, being quite tall and close together, giving the suggestion of tall twin spires.

Yours truly,
GRANT M. SLOAN.
Havana, Ill.

MORE DATA ON GROWING ALFALFA WANTED

Editor American Grain Trade:—I note a quotation in the article on "Alfalfa in the Corn Belt," in the March issue of the "American Grain Trade" from Hon. A. T. Grout of Winchester, Ill. He says that it is not so much the soil, the climate or the location, as in knowing how and he stops there. What I would like to know is his idea how to grow it. Any further information on this subject would be appreciated.

Yours truly,
E. P. ARMSTRONG.
Chicago, Ill.

EDITOR'S NOTE:—In reply to this letter, a comprehensive article on growing alfalfa has been written by Prof. P. G. Holden and will be found on Page 545 of this issue.

FLOOD TIES UP OHIO SHIPMENTS

Editor American Grain Trade:—Our shipments have been put back all the way from ten days to two weeks on account of rains and floods. Fort Wayne was tied up all of last week and for a few days the railroad companies would not accept anything except to be shipped north on the Grand Rapids & Indiana Railroad.

We are also blockaded with cars that are lying in the yards, and our switching facilities are very limited. The railroads in this city have embargoes in effect on grain arriving from connecting lines. The Panhandle is also sending all their traffic through Fort Wayne, via Ridgeville and Grand Rapids & Indiana Railroad on account of wash-outs on their own line. Of course, this makes it all the worse for us and under the conditions it is a hard matter to make satisfactory shipments.

Yours truly,
THE EGLY-DOAN ELEVATOR COMPANY.
Fort Wayne, Ind.

THE FOREIGN BARLEY MARKET

The firmness of the barley market in Germany has been well maintained during the past month, according to Broomhalls, although the consumption still leaves much to be desired. It continues to be reported that inland requirements are limited because recently larger quantities of low quality native grain have been threshed and these being scarcely saleable must be mixed with a little barley and fed to cattle. People find it difficult to decide whether this state of things is likely to last, some claiming that in the near future no change can be expected. Others are of the opinion that as soon as growers get busy with spring seeding there will be a larger demand for feeding grain at importing markets. As the price level on the Hamburg market is below foreign parities, it is expected that there will be a good recovery there as soon as inland buyers are purchasing freely. Stocks in Hamburg are being worked down and the same is also the case with floating supplies. Expectations of a good recovery in Hamburg may be fulfilled because supplies of foreign barley are comparatively moderate at the present time, while Germany is a big place and has big requirements.

At the same time, however, it must be mentioned that the official estimates of farm reserves just issued show supplies of all kinds of grain to be much heavier than those of a year ago. Giving round figures, the officials show 16,000,000 quarters of native cereals on the farms, in excess of what was held a year ago. It is quite true that they say a considerable percentage of the grain is of low quality, but this, of course, only makes it more sure that there will be a large supply available for feeding purposes. It looks as if the course of the market will depend upon Russian offers. If these keep small there should be sufficient demand to maintain steady or firm markets, but if Russian sellers press their offers in competition with the home-grown supplies and American barley, weak or easy markets are almost sure to result.

LARGE EXPORTS OF KAFIR CORN

Although South Africa is the original home of Kafir corn a large shipment was recently made from New York to Cape Town. The demand there is due largely to the failure of the African crop. During the past month 500,000 bushels were shipped from Oklahoma to New Orleans for export and the demand for Kafir corn in foreign markets is reported to be growing better all the time. Recently 78,000 bushels of Kafir from the Weatherford, Okla., district were shipped from Galveston, Texas, to Liverpool and Antwerp. There are now 100,000 bushels of Kafir in storage at Galveston or enroute to Galveston for shipment to Europe. Prices have been asked on 150,000 bushels to be shipped to Havre, France, and on 350,000 bushels for shipment to German points. Shippers of Galveston are confident that the total shipment of Kafir to Europe by July 1 will amount to 500,000 bushels.

Tests are being made by the government to see if Kafir can be used to make the bread needed by the German army. It is said that the value of Kafir is not well known in Europe now, but that because of the shortage of corn during the past few years consumers are beginning to investigate Kafir as a substitute.

BARLEY AND MALT

[Special Correspondence.]

CHICAGO BARLEY MARKET

BY A. L. SOMERS.

President Somers, Jones & Co., Chicago.

Since our last letter covering the barley situation, the market has become distinctly strong in undertone. Receipts are very light and today's market (Friday, April 11) shows a 1 to 2 cents per bushel advance in choice qualities, a car of choice eastern Iowa barley selling at 69 cents, the top price paid recently. Good mellow qualities, especially those coming from Iowa and eastern Minnesota, are in very good demand, either spot or in round lots "to arrive," and buyers are willing to pay a liberal advance over prices ruling recently.

The medium and low grades of malting barley are also strong, with light supply and little selling pressure. Feed barley, on the other hand, continues slow. The export demand has been quiet, and it is difficult to get over 46 to 48 cents for heavy weight feed for export purposes. The domestic demand still takes occasional cars as high as 49 to 50 cents.

We quote malting values ranging from 52 to 70 cents, mainly 55 to 65 cents. Feed values from 45 to 49 cents, mainly 47 to 48 cents.

All indications point to well maintained or slightly higher values during the period of light receipts.

This will probably continue for another month. Soil conditions are favorable and advance reports indicate a big acreage for another season.

It is to be hoped that farmers in the Northwest, especially those in western Minnesota and the Dakotas, will supply themselves with seed barley of choice quality. We fear that too many will use black oats mixed and seedy barley, rather than to go to the expense and trouble of procuring really good seed, such as is easily obtainable in the centers and from the larger dealers in the Middle West. Farmers in the Northwest, especially those in North Dakota, have sustained heavy losses, being compelled to sell their barley at low prices because of the heavy admixture of seeds and black oats. That this is a condition which could be easily improved materially goes without saying. The average farmer is not particular enough as to the kind of seed he puts into the ground.

Daniel Lally has been appointed manager of the Minnesota Malting Elevator at Goodhue, Minn.

Last year Argentina imported \$943,000 worth of malt, mostly from Austria and Germany.

The Sturges Hay and Grain Company recently installed a roller barley mill in its plant at Phoenix, Ariz.



From the "Green Book"

JOSEPH, THE JOE LEITER OF EGYPT

HAY AND STRAW

I. N. Pangle has opened a new feed store at Lima, Ohio.

It is reported that California hay has been suffering from lack of rain.

The Steinke Hay and Feed Company of LeRoy, Ill., has taken over the feed store of John Karr.

Reeves Bros. have sold their feed business at Jonesdale, Wis., to the Farmers' Feed Company.

It is reported that the investigating committee of the Minnesota State Senate may make an investigation of the hay exchanges.

The Board of City Commissioners at Oklahoma City, Okla., has adopted a resolution authorizing the establishment of a city hay market.

The Sturges Hay and Grain Company of Phoenix, Ariz., has arranged with the Arizona Eastern Railroad for the installation of a spur track.

The Gates Elevator Company of Cleveland, Ohio, has purchased the hay sheds of the National Hay Company and possession was given on April 1.

A bill providing that every bale of hay must be tagged with the actual weight at the time it is sold has passed both houses of the State Legislature in Kansas.

The Executive Committee of the National Hay Association has suspended the J. G. Klug Hay Company of Terre Haute, Ind., for violating the arbitration rules.

The Broomcorn Baler and Seeder Company has been incorporated at Enid, Okla., with a capital stock of \$100,000. The incorporators are I. P. Cline, E. A. Butler and S. L. Cline.

D. E. Hamlin & Company, feed dealers at Pittsburgh, Pa., have purchased a large four-story warehouse which will be used for storage purposes. The building is 100x145 feet in size, and the consideration was \$25,000.

The National Broomcorn Growers' Association has been incorporated at Oklahoma City, Okla., by T. L. Byars, J. D. Roberts, J. C. Bull, S. K. Roberts, F. J. Gillette of Crawford; W. A. Dillinger, C. J. Blackburn of Oklahoma City and L. L. Combs of Goodman, Mo.

The efforts of the Associate Boards of Trade in conjunction with the South Alberta Hay Growers' Association to secure hay inspection throughout the province of Alberta has been meeting with encouragement. The matter has been taken up with the Grain Commissioners, and the Department of Agriculture at Ottawa, Ont. A suggested series of grades for hay and straw will be submitted to the commissioners for their consideration.

Representative farmers of Skagit County, Wash., recently held a meeting at Mt. Vernon, Wash., and indorsed a proposition by which the farmers of the state will take over and operate upon a co-operative basis the plant and business of the W. W. Robinson Feed and Grain Company at Seattle, Wash. It is the plan to subscribe \$154,000 or more to offset farm land interests in eastern Washington which are held by the Robinson Company. The paid up capital of the company is now \$295,000. Mr. Robinson will retain an interest in the company. The proposed deal includes property at Seattle and warehouses and other equipment at Wapato and Toppenish, Wash.

Charles England & Co., Baltimore, Md., say in their market letter of April 5: "Notwithstanding that all the embargoes recently placed on hay have been removed, receipts have been light. Hay in transit had therefore been pretty well cleaned up before the recent floods, which have cut off the movement from a large section, and under the small offerings, prices have advanced at a time when it was expected that, because of the large crop, the tendency would be the other way. Local buyers are not very active, believing that the advance is only temporary. It is true that country roads are in such a condition that there cannot be much increase in the movement shortly, but, at the same time, the demand is not large and it will steadily increase as pastures become more available, therefore, the present advance may be the last good chance to market hay, unless it should be very dry during May, and the coming crop suffer. The relative scarcity of good hay has forced some buyers to give attention to the common stock, which had been a drug on the market for weeks past, creating an opportunity to clean up much stock which had a depressing effect, thereby making this market a most attractive one."

NATIONAL HAY ASSOCIATION

Preparations for the twentieth annual convention of the National Hay Association at Peoria, Ill., on June 24, 25 and 26 are going forward very rapidly and all indications seem to point to a very successful meeting. A vigorous campaign is being conducted by the officers and individual members to bring the membership up to a total of 1,000 by the time the first session is called. Peoria is arranging some elaborate things in the way of entertainment. The Peoria Board of Trade has decided to take the delegates for a steamboat ride and picnic up the river, and President J. H. Ridge has appointed the following committee to look after the arrangements: L. L. Gruss, George L. Bowman, J. H. Love, L. H. Murray and R. A. Webster.

HAY TRANSPORTATION CHARGES DISMISSED

On January 8, 1912, James J. McLoughlin of Eudora, Ark., filed a petition against the Texas & Pacific Railway Company, alleging excessive and unreasonable charges for the transportation of two shipments of hay from Eudora to New Orleans in May and August, 1911. At the time of the movement, the rate from Eudora to New Orleans was 15 cents per 100 pounds, with a minimum weight of 20,000 pounds for any size car, as provided by western classification. The first shipment weighed 28,900 pounds and the second 20,300 pounds.

The complainant in each instance requested the railroad agent to furnish a 40-foot furniture car, which the plaintiff claims would have accommodated the shipments. The initial carrier had no furniture cars available and two 34-foot cars were used for each shipment. On each of the four cars used, the minimum weight of 20,000 pounds was applied, resulting in a charge of \$30 per car, or \$60 per shipment. The plaintiff contended that each of the shipments could have been loaded into a 40-foot car, in which case the actual weight would have exceeded the minimum and that the charges were unreasonable to the extent that they exceeded charges based upon the actual weight of each shipment.

The defendants maintained that it would have been impossible to load either shipment into the cars ordered. The Interstate Commerce Commission held that this point was immaterial, however, as this was not a case which calls for the rule previously applied in several cases where a large car was ordered and two smaller ones were furnished in lieu thereof, the shippers charging on the basis of the minimum weight applicable to the car ordered. The minimum weight of 20,000 pounds in this case applied irrespective of the size of the car. The Interstate Commerce Commission held that the minimum weight prescribed for hay was not unreasonable and the complaint was dismissed.

SEIZURE OF HAY

In a circular letter to the members of the National Hay Association, dated April 5, Secretary J. Vining Taylor calls attention to the fact that some time ago the United States Department of Agriculture ordered its agencies to seize and confiscate all hay shipped between states, where it contained deleterious mixtures. This was done under the amendment to the Food and Drugs Act passed August 23, 1912. The government granted a stay of action in compliance with requests from the National Hay Association and other organizations of like character but it was only temporary. The government is again at the present time seizing and confiscating all hay shipped from one state to another under the above law. The law which gives this authority reads:

"An act to amend section eight of an act entitled 'An act for preventing the manufacture, sale or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines, and liquors, and for regulating traffic therein, and for other purposes,' approved June 30, 1906.

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that section eight of an act entitled 'An act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines, and liquors, and for regulating traffic therein, and for other purposes,' approved June 30, 1906, be, and the same is hereby, amended by striking out the words: 'Third. If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package,' and inserting in lieu thereof the following:

"Third. If in package form, the quantity of the

contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure, or numerical count: Provided, however, that reasonable variations shall be permitted, and tolerances and also exemptions as to small packages shall be established by rules and regulations made in accordance with the provisions of Section three of this Act."

"Section 2. That this Act shall take effect and be in force from and after its passage: Provided, however, that no penalty of fine, imprisonment, or confiscation shall be enforced for any violation of its provisions as to domestic products prepared or foreign products imported prior to eighteen months after its passage."

This law is covered by the United States Department of Agriculture's Circular No. 21 as issued Oct. 28, 1912, which gives in its entirety the Food & Drug Act of June 30, 1906. Members are cautioned to be very careful in shipping off-grade hay, and warned to avoid the above confiscation. The place for this kind of hay is on the farm and dealers should discourage its movement in every way possible.

NEW ALFALFA ORGANIZATION

An organization of alfalfa growers in Sangamon County, Ill., was effected recently under the name of the Sangamon County Alfalfa Growers' Association. The prime object of the new body is to help spread the production of alfalfa not only in Sangamon County but throughout the whole Corn Belt. The following officers were elected to serve for the ensuing year:

President, Hon. J. Otis Humphrey, Springfield; vice-president, P. J. Telfer, Williamsville; secretary, Percy Stone, R. F. D., Springfield; treasurer, J. F. Prather, Williamsville; executive committee, George Hobkirk, R. F. Constant, Buffalo Hart; R. U. Richardson, Williamsville; John W. Yocum, Sherman; F. F. Ide, Illiopolis; James A. Stone, Henry Turley, J. W. Campbell, R. F. D., Springfield; J. G. Caldwell, Williamsville; J. Walter Garvey, Thayer; Harley Grove, Williamsville.

DESTROYERS OF ALFALFA WEEVIL IMPORTED

At least seven species of insects of prey to destroy the alfalfa weevil are to be imported from Italy and sent to Utah, according to plans of the U. S. Department of Agriculture. Two representatives of the department are now in Utah, experimenting with specimens of the insects.

The alfalfa weevil is not native to America, but has been accidentally introduced from Europe, western Asia or northern Africa, where it is common, and where, while more or less destructive to alfalfa, it is probably prevented by its natural enemies from working serious and widespread ravages. Just where or in what manner it was brought to this country no one knows, but it was first discovered in the spring of 1904 in a small field of alfalfa near Salt Lake City, Utah.

In the first four years following its discovery the alfalfa weevil has spread over a total area of fully 100 square miles of territory. So rapid has been its diffusion and so destructive its effects upon alfalfa that in the fall of 1909 the governor of Utah appealed to the Secretary of Agriculture for help in the investigation of the pest and in experimentation, with the hope of finding some measures of relief.

The insects which are to be imported are said to look upon the alfalfa weevil as a food luxury. They are as eager to destroy the weevil as cats are to destroy mice and mosquito hawks are to destroy mosquitoes, according to European agricultural experts. If they are all that they are reputed to be and can stand the climate, millions will be turned loose in Utah as watchdogs for alfalfa. They are said to abhor the taste of the plant and do no damage except to the weevil.

DEVELOPMENT OF DROUGHT-RESISTING CEREALS

The remarkable work of seed development started by Robert Gauss of the *Denver Republican* some twenty years ago will be carried on by Prof. B. C. Buffman. Shortly before his death, Mr. Gauss turned over to Prof. Buffman his selected seeds, representing the progress of the experiment. Mr. Gauss felt that he had made a start along the right road, and that from the last seed he had gathered, at the time he suspended his experiment owing to lack of funds, several species of draught resisting cereals might be developed.

In his work on his experimental farm in Wyoming, Prof. Buffman has proved that he is eminently fitted to carry Mr. Gauss' plan to completion. It is interesting to record that Prof. Buffman, after examining the seed given him for further development, finds that the Denver scientist had developed at least two species of wheat and rye which promise wonders, and apparently the latter man was farther along the road to success than was imagined.

FIELD SEEDS

J. Lynard, produce dealer at Mankato, Minn., recently installed a seed department.

The Doran-Kain Seed Company of Dallas, Texas, which has been conducting a seed and produce establishment, discontinued operations about April 1.

Berryman & Maupin of King City, Mo., have ordered equipment for seed separating and cleaning, including power transmission apparatus, from the Great Western Manufacturing Company of Leavenworth, Kan.

The Olmsted County Pure Seed Association has been formed at Rochester, Minn., and the officers are as follows: J. F. Spencer of High Forest, Minn., president; J. M. May of Rochester, secretary and treasurer, and R. B. Jacobs of Rochester, vice-president.

In an effort to stamp out a disease which has cost the state of Colorado about \$5,000,000 annually for several years, the State Legislature has passed a bill giving the state entomologist power to inspect all farm seeds and to appoint deputies for that work.

It is reported that E. H. Beise, a bonanza farmer of Blue Earth county, Minn., recently shipped 706 bushels of clover seed to Milwaukee, Wis., which brought him \$12 a bushel, or \$8,472. The seed was mostly threshed from Mr. Beise's farm but he purchased some from neighboring farmers.

C. A. King & Co. of Toledo, Ohio, issued the following report on clover April 4: "April decrease in clover seed stock here. Will it be large? It has secured a good start. Largest April shrinkage in recent years was 20,600 bags seven years ago. Season was very late. Shrinkage was greater than March. Largest April decrease since was 11,000 two years ago. Average past five years only 4,000 bags. This is chiefly due to two exceptional seasons. Three years ago stock increased 650 bags. Four years ago it increased 200. All other Aprils, past nine years, have scored decreases."

The seed growers of the state of Minnesota recently organized an association to perpetuate the purity of Minnesota grown seeds. The organization is an outgrowth of the Crop Breeders' Association of Minnesota and is known as the Minnesota Seed Growers' Association with smaller clubs in many counties of the state, which work in co-operation with the state organization. Professor C. P. Bull of the Farm Management Department of the Minnesota University is an officer of the association. Concerning the work, Professor Bull recently said: "A great deal of the seed used in the state is grown at the university experiment stations and the variety best adapted to one particular locality is raised in the experiment station nearest that locality. We plan to be able to send out inspectors among the farmers so that all of the seed can be tested, and certificates of purity issued to those raising seed grain of a desired standard."

ALLEGED ALFALFA SEED FRAUDS IN THE
NORTHWEST

According to Professor C. P. Bull of the Agricultural Extension Division of the University of Minnesota, alfalfa seed labeled as Montana or Minnesota seed, although grown in other states, is being sold in large quantities to the farmers by dealers operating in Minnesota. It is said that the quantities so labeled exceed the alfalfa seed production in these states, but the recent state-wide seed organizations in Minnesota hope to obviate these difficulties by co-operation with the farmers.

Professor Bull claims that the Grimm seed, a Minnesota variety, and the Montana species are the best on the market for use in the Northwest, being more suitable for development in the Northern States, owing to their hardy nature. He further states that large quantities of seed raised in the Southwest are being shipped into Minnesota by the seed companies and it is his belief that alfalfa raised from this seed will not endure the severe weather of the Northwest.

"Each year the Extension Department sends out warnings to the farmers of the state, and offers them the use of its laboratories for testing purposes, so that they may ship to us for examination any seed of which they are suspicious," declares Professor Bull. "The test is a very simple one, and no charge is made for it, except the cost of mailing. The Crop Breeders' Association, which is being organized throughout the state under the direction of this department, is educating the farmers very rapidly, and each year the number of farmers who allow themselves to be deceived is less. There is now a bill before the Legislature to prohibit the sale of seed of this kind, and making offenses pun-

ishable by law. This ought to do away with the sale, as it is easy for us to trace all sales, by co-operating with the farmers."

A special inquiry into the seed selling business of Wisconsin was held recently by the Committee on Agriculture of the General Assembly, but the promised exposure of fraud did not materialize. The only thing brought out by witnesses at the hearing was that it is nearly impossible to tell from the looks of alfalfa seed whether it was grown in Montana or any other part of the United States. It was urged that a law be enacted forbidding, under severe penalty, the selling of seed as grown in one state or locality, when in fact it was grown in another.

WASHINGTON SEED LAW

Washington is one of a number of states that has a law governing the sale of seeds. The important features of that law are as follows:

1. All dealers must label their seeds, either "standard" in accordance with those prescribed by law, or with the per cent of purity, specifying the kind and per cent of impurities, provided they were below the standard fixed by law.

2. Seed cannot be offered or exposed for sale if it contains seeds of wild mustard, quack grass, Canada thistle, wild oats, dodder or corn cockle.

3. A provision by which any person who is going to use the seed himself can have it tested, free of charge, at the state seed testing laboratory under that department.

A SEED CORN CENSUS IN MINNESOTA

One thousand letters were recently sent out by C. P. Bull, associate professor in the Minnesota Agricultural College, to the farmers of Minnesota, asking for information about seed corn obtained from the crop of 1912. It is hoped by this means, to gather such facts as may prevent, during the present year, a repetition of the seed corn scarcity of last spring. The experiment station at St. Anthony Park and the Minnesota Field Crop Breeders' association are working to locate the best and most reliable seed corn in the state, where germinating tests are high. When the information is at hand farmers located where there is scarcity of seed will be informed by the agricultural college how and where they may secure good seed corn.

VALUABLE HAND BOOK ON FARM SEEDS

The value of the little hand book on Farm Seeds just published by the Albert Dickinson Company of Chicago and Minneapolis can scarcely be estimated in this day of seed selection and crop improvement work. It contains useful, reliable and comprehensive information pertaining to the leading varieties of farm seeds. Such subjects as soil, preparation of the seed bed, time and methods of seeding and harvesting are treated by experts and all principal farm seeds are illustrated.

Growers of grain are more than ever aware today of the importance of selecting the purest seed obtainable. It is universally admitted that results attending the use of high-grade seeds fully justify the slight increase in cost over ordinary qualities. Clean seed means a clean farm, and the Albert Dickinson Company has done a real service to agriculture by the compiling of its little book. The book will be mailed free to every one who mails 4 cents to cover postage on same.

PROMOTING BETTER FLAX

After many years of seed selection, and definite crop experiments the botanical department of the North Dakota Agricultural College has produced strains of flax which, it is said, have the power of growing on old flax cropped wilt-sick lands and producing approximately normal yields of flax. It is suggested that the methods used in the experiments be carried direct to the farmer, in such a manner that the benefits will come in the shortest possible time and that these benefits will be of permanent value. In order to accomplish this, it is proposed that a flax growers' association be organized, the membership of which shall be composed of actual growers, one to several operating members in each county. Each grower would operate five or 10-acre plots, breeding disease-resistant flax, which would supply the seed for "increase" fields, which in turn would supply seed for the normal flax acreage of the state.

New, uncropped, virgin sod lands will not last long now that the traction outfits have come to stay. Therefore, the farmers who will be prepared to retain flax as a part of his regular pay crop on his old worked soils cannot fail to reap great

benefit. To the farmer who will decide to take up the breeding of wilt and rust resistant flax, there will come great benefit, in the fact that he can raise a normal crop of flax on old flaxed lands that are reasonably free from weeds. He can sell this seed to his neighbors and the seed houses at a good bargain above the market price, and at the same time be a benefit to the state.

THE FUNK SEED FARMS

About twelve years ago the younger members of the Funk family in McLean County, Illinois, resolved to abandon the farming methods of their forebears and to establish a precedent of their own. They had arrived at the conclusion that the income of their crops did not measure up to their land values, the soil being especially adapted to the growing of corn, which was then selling at about 30 and 35 cents per bushel. One of the growers was dispatched to the corn belt to purchase ten or twenty ear lots of seed corn of the choicest varieties.

In the five-acre plot called the breeding block they planted the seed corn, each variety in a separate row. Out of approximately 5,000 rows, one ear of each row that possessed inherent virile qualities was selected, designated the "mother ear," and it was given a number and strain for the starting of a pedigreed breed of corn. The Funks breed their own types and they have reduced the work to a science.

The Funk holdings cover 25,000 acres of land in McLean County and 7,000 acres are given over to corn alone. There are now eleven of the younger generation of Funks, and it is said that every one took to farming from choice, although all were graduates from Harvard, Yale, Princeton and Andover. There are many visitors to the farms, a group of professors from Heidelberg being among recent sightseers. The Funk corn goes to Chili, Argentine, Cape Town, New Zealand, Australia, and Afghanistan by regular order.

AMERICAN CORN GROWING METHODS
IN RUSSIA

Several years ago Louis G. Michael, an agricultural expert and graduate of an American agricultural college, was engaged by the Zemstvo of Bessarabia, Russia, to instruct the farmers of that province in corn culture. Recently Mr. Michael submitted a very interesting report to U. S. Consul Grout of Odessa, which reads in part as follows:

"The season was cold and met, and throughout the province an early cold wave attended by snow caught the corn when still green. Ninety per cent of the peasants' corn was not ripe enough to cut when the cold wave killed it standing in the fields. Then followed warm rains, and the corn began to rot and mold. The peasants have no seed for the next planting."

"In the face of these conditions, our work was attended with the following results: On our field at Kostozinie, 4 miles from Kishinev, Italian corn, called 'chinquintino,' was planted during the last week in May and was ripe enough to cut by the 12th of September. We began cutting at that time, and the whole field was cut, shocked, and dry when the snow came. It was the first time that corn had been shocked in American style in this part of the country. Estate owners came from miles around to see the novelty, and many predicted ruin. We began husking with an American husker and shredder early in October and by the end of the month had 6,000 bushels of sound and dry corn in the crib. From this corn 500 bushels were selected for seed in 1913."

"As an experiment we organized thirty-five boy's clubs and instructed three hundred and fifty youths in American methods of selecting and testing seeds, as well as planting, cultivation, and harvesting. The boys selected the corn from their fathers' cribs under the direction of their school-teachers and my assistants. Each boy was responsible for his own corn. On most of the thirty-five plots the corn ripened well, yielding 46 to 109 bushels per acre."

"In addition to this large undertaking the Government Board of Control has rented for the use of our organization seven fields of 60 acres each on which we are to breed and select corn. One of these fields is located in each of the seven civil districts of Bessarabia. I have divided Bessarabia into three administrative districts, comprising two or three districts each. Each administration district is under the supervision of one of my personal assistants. Each assistant controls the work of two or three agronomes, and each agronomer is assisted by three or four instructors from agricultural high schools. For the year 1912 the government appropriated for our work \$18,540; for 1913 this appropriation has been increased to \$64,325. Relative general agriculture, an increasing number of tractor plow outfits are being acquired. All kinds of American machinery are being purchased, especially corn tools."

FIRE S-CASUALTIES

The Atlantic Elevator at Calio, N. D., burned recently.

Recent storms partially wrecked the Grove Elevator at Colfax, Ind.

The Atlas Elevator at Lester, Iowa, was somewhat damaged by fire recently.

J. H. Moore's elevator at Faxon, Okla., was completely destroyed by fire recently.

The elevator of Harrison Bros. at Dwight, Ill., was slightly damaged by fire recently.

The elevator of the C. S. Christensen Company at Madelia, Minn., was burned on March 28.

The elevator of Catron Bros. at Flora, Ind., was somewhat damaged by a cyclone on March 21.

The Farmers' Elevator with a large quantity of wheat at Olmitz, Kan., was destroyed by fire recently.

While working in the elevator at Dewey, Ill., Charles G. Kornmeyer was caught in the machinery and killed.

Fire recently destroyed the plant of the Roby Elevator Company at Watonga, Okla. The loss will aggregate \$10,000.

In the recent severe storm that swept the Central States, the DeGou Elevator at Woodbine, Iowa, was completely wrecked.

In the recent severe windstorm which swept Kentucky, part of the roof of the elevator at Owensboro, Ky., was carried away.

A loss of \$4,000 was sustained in a recent fire by Strong & Strong, wholesale grain, hay and feed dealers at Henderson, Texas.

Fire damaged the hay and grain warehouse of Charles L. Jones at Wallingford, Conn., recently, resulting in a loss of \$4,000.

The recent flood damaged the plant of the Petersburg Milling and Grain Company at Petersburg, Ind., to the extent of \$1,000.

The office and other buildings of the Pacific Elevator Company at Larned, Kan., were considerably damaged by recent severe windstorms.

The warehouses of the Marsh Milling and Grain Company at Madill, Okla., were destroyed by fire on March 17, entailing a loss of \$5,000.

The recent cyclone which visited Indiana tore the roof off the elevator of the Morrow Grain Company at Richvalley, Ind., on March 21.

The hay and grain warehouse of H. L. Elliott & Co., at Minneapolis, Minn., was burned on April 7. The loss was \$6,000 with \$5,000 insurance.

During a windstorm on March 30, a portion of the roof of the elevator of the Red Wing Malting Company at Red Wing, Minn., was damaged.

The elevator of the Cumberland Valley Railroad at Martinsburg, W. Va., was destroyed by fire recently, the damage resulting amounting to \$10,000.

The mill of the Babcock Grain Company at Reed City, Mich., was struck by lightning during a recent severe storm and burned, with a loss of \$1,700.

Damage amounting to about \$600 resulted from a fire in the corn drying department of the Kansas City Southern Elevator, Kansas City, Mo., last month.

High water put the elevator of the Goemann Grain Company at Mansfield, Ohio, out of commission for several days during the flood in that district.

A warehouse at Acton, near Columbia, S. C., together with 1,000 bushels of corn, was destroyed by fire on March 18. It was the property of A. C. Hamer.

Fire of unknown origin totally destroyed the elevator and flour mill of the Reeds Milling Company at Reeds, Mo., on March 14, entailing a loss of \$12,000.

The seed house of the Waldron Seed Company at Waterloo, Neb., a four-story structure, burned on March 18, with a loss of \$75,000. It was partially insured.

The elevator of the B. A. Lockwood Grain Company at Reeves, Franklin County, Iowa, was blown over and badly wrecked during the evening of March 23.

A box car loaded with hay in the yards of the Pittsburgh, Fort Wayne & Chicago Railroad at Manchester, Ohio, caught fire recently and was entirely destroyed.

Samuel B. Cloyd of Chatham, Ill., was seriously injured in the elevator at Cody, Ill., when he was caught by the driving belt. His body stopped the engine in time to save him from death but his right

leg was broken and the ligaments of the knee were badly sprained.

The hay warehouse of the J. W. Marks Company at Jackson, Mich., was entirely destroyed by fire on March 25. The origin is thought to have been incendiary.

The elevator at Ellsworth, Minn., owned by the Davenport Elevator Company, Davenport, Iowa, was destroyed by fire recently, together with about 60,000 bushels of grain.

Fire which is supposed to have been caused by an overheated bearing, destroyed the Atlantic Elevator at Egeland, N. D., together with about 8,000 bushels of grain.

There were from three to four feet of water in the bins of the Cleveland Grain Company during the flood at Cleveland, Ohio, and the company suffered some loss.

The plant of the Dodson Grain Company at Lebanon, Tenn., was damaged to the extent of \$1,000 recently, when a water spout deluged the business district of the city.

The Canada Malting House at Palmerston, Ont., was destroyed by a fire which originated in the third story. The loss was estimated at \$100,000, partially covered by insurance.

Two hay barns and a warehouse belonging to the North Branch Grain Company at North Branch, Mich., were wrecked on March 21, in the windstorm that swept that district.

The John A. Tyner Grain Company of Nashville, Tenn., recently suffered the loss of 700 bags of shelled corn when a barge was sunk in the Mississippi River by a steamer.

A. C. Plumb, manager of an elevator at Fowler, Kan., was seriously injured by falling to the ground while testing a load of wheat. The wheels of the wagon passed over his body.

Miller Brothers' elevator at Holmesville, Ohio, together with 3,500 bushels of wheat and 1,200 bushels of oats, was burned last month. The loss was about \$2,000, partially covered by insurance.

The St. Anthony and Dakota Elevator at Orr, N. D., was completely destroyed by fire last month, which originated in the cupola. The house was partially filled with grain. It was fully insured.

The Wheeler Elevator at Victor, Iowa, was damaged by fire on March 29, which originated from hot coals which had been thrown out near the engine room. There was no insurance on the building.

During the flood in Ohio, a steamer loaded with grain for the Cleveland Grain Company bumped a bridge at Cleveland and sent it into the river. The cargo of grain was not damaged, according to reports.

The plant of the Northwestern Elevator and Mill Company at Toledo, Ohio, was closed temporarily owing to the recent flood. Several steel tanks were washed from their foundations and put out of commission.

A wheat train on the Duluth, Winnipeg & Pacific Railroad was wrecked near Virginia, Minn., on April 4, and seven cars went into the ditch, spilling about 40,000 bushels of grain. No one was seriously injured, it is said.

The plant of J. F. Brubaker & Co., hay and grain dealers at Kansas City, Mo., was gutted by fire on April 3. A large quantity of hay and grain was stored in the structure, which was 150 feet wide and a block long.

Fire caused by sparks from a locomotive burned the elevator of the Skewis Grain Company at Mankato, Minn., on April 1. The elevator had not been used for several years. The loss on the building and machinery was \$6,000.

The elevator of the Winter, Truesdall and Ames Company at Campbell, Minn., was destroyed by fire of unknown origin on March 30. There were 3,000 bushels of wheat, 1,000 bushels of barley and 10,000 bushels of oats in the house at the time.

J. D. Fitch's elevator at Frankfort, Ind., was somewhat damaged by the recent cyclone in that district. The roof of the house of the Farmers' Elevator Company at that place was completely torn off and carried several hundred feet away.

James Cameron, grain buyer for the Taylor Milling Company at Lethbridge, Alta., was smothered to death in an oat bin in the company's elevator on March 26. It is not known just how the accident occurred, but Mr. Cameron had gone to the top floor of the house to ascertain the quantity of oats in the bin before leaving for the night. When he

did not reappear a search was made, the bin was emptied and his body discovered, but life was extinct. He is survived by his parents and two sisters.

The grain elevator, warehouse and other buildings at Walker, N. Y., owned by B. J. Snook, were entirely destroyed by fire on March 26. The loss will aggregate \$30,000, mostly covered by insurance.

While unloading wheat at an elevator in St. John, Kan., a wagon dump failed to work, and George R. Cooper started to step on the wagon when the dump dropped the wagon bed and caught his leg, breaking it in three places between the knee and ankle.

About \$2,000 worth of grain was destroyed when a fire which started in one of the grain chutes, entered the bins of an elevator of the American Malting Company at Milwaukee, Wis. The elevator is of concrete and steel construction and 120 feet high.

The grain elevator and hay shed of the Rose-dale Coal and Feed Company at St. Louis, Mo. was destroyed by fire recently, together with three loaded freight cars. The property was insured. The building was a two-story frame structure covered with corrugated iron.

The elevator of the Windsor Grain Company at Windsor, Ill., was destroyed by fire recently, entailing a loss of \$9,000. The building was insured for \$6,000 and the stock for \$2,000. The house contained about 1,000 bushels of corn and 1,500 bushels of oats. The greater part of the stock in the Windsor Grain Company is held by S. L. Wallace.

The alfalfa mill at Argonia, Kan., which had not been in operation for some time, was destroyed by fire recently, which is supposed to have originated from a locomotive spark. About 10 tons of baled alfalfa were stored in the mill. The loss amounted to \$10,000 with no insurance. The mill was the property of the Argonia State Bank. The plant will not be rebuilt and the site will be sold.

Fire of unknown origin totally destroyed the bean elevator of J. D. McLaren at Charlotte, Mich., on March 22. Four thousand bushels of beans and several hundred bushels of grain were consumed in the flames. The total loss was estimated at \$30,000 with partial insurance. William Van Vleet, manager of the plant, stated that the house will be rebuilt as soon as the insurance adjusters complete their work.

EXPORTS AND IMPORTS

The following is a statement of the exports and imports of various cereals, seeds, etc., for the month of February, 1913, and for the eight months ending with February, 1913, as reported by the Bureau of Statistics, Department of Commerce and Labor (quantities only unless otherwise stated):

ARTICLES.	February, 1913		EIGHT MONTHS, ENDING FEB.	
	1912	1913	1912	1913
Exports—				
Barley, bu.....	2,222	2,910,358	1,478,295	14,061,530
Buckwheat, bu.....		1,120	10	1,290
Corn, bu.....	7,022,277	12,306,596	31,468,011	31,364,572
Corn Meal, bbls.....	34,402	67,287	305,679	291,864
Oats, bu.....	140,314	1,048,513	1,170,691	32,262,622
Oatmeal, lbs.....	784,732	6,096,657	7,182,472	25,780,877
Rice, lbs.....	396,224	1,713,793	25,178,786	5,060,314
Rye, bu.....	54	131,167	4,343	741,782
Rye Flour, bbls.....	407	878	2,887	3,657
Wheat, bu.....	1,243,522	4,356,506	26,619,314	67,625,080
Wheat Flour, bbls.....	841,637	1,074,971	7,724,419	7,846,366
Bran, Millfeed, etc., tons.....	14,744	609	90,776	4,443
Dried Grains, etc., tons.....	5,633	4,129	46,725	43,038
Rice bran and polish, lbs.....	1,308,726	674,880	10,460,094	11,276,940
Total Breadstuffs.....	\$11,075,392	\$19,798,524	\$93,347,737	\$150,988,432
Glucose and Grape Sugar, lbs.....	15,297,687	19,176,836	125,723,703	138,264,998
Hay, tons.....	5,758	7,510	39,129	42,186
Oil Cake and Oil-Cake Meal:—				
Corn, lbs.....	5,481,423	8,003,892	43,452,148	47,338,653
Cotton Seed.....	139,900,657	145,641,945	970,759,646	851,347,082
Flaxseed or Linseed lbs.....	57,551,701	91,446,674	396,091,876	560,930,817
Vegetable Oils:—				
Corn, lbs.....	2,052,768	1,661,930	15,504,872	13,772,221
Cotton Seed, lbs.....	39,090,105	37,941,647	279,144,564	209,432,173
Linseed, gals.....	33,362	471,022	152,859	1,211,059
Clover Seed, lbs.....	151,935	965,058	1,535,887	4,345,222
Timothy Seed, lbs.....	291,741	1,704,534	3,732,868	13,887,918
Cotton Seed, lbs.....	9,332,159	6,953,550	51,152,432	18,663,678
Flaxseed, bu.....	521	254	658	16,093
Other Grass Seed, val.	\$58,144	\$48,861	\$457,286	\$791,861
Beans, etc., bu.....	19,942	21,578	267,232	283,102
Imports—				
Corn, bus., since July 1, 1912.....	370	567	12,047	877,590
Oats, bu.....	31,801	15,764	59,963	683,277
Wheat, bu.....	89,878	45,316	1,014,554	685,912
Wheat flour, bbls.....	20,256	3,453	97,602	79,627
Rice, lbs., since July 1, 1912.....				
Uncleaned, including paddy, lbs.....	4,693,334	4,725,472	30,206,910	35,461,850
Cleaned, lbs.....	3,223,350	3,662,984	12,877,016	19,090,136
Rice, Flour, Meal, etc., lbs.....	6,039,914	8,944,108	72,711,573	81,659,512
Hay, tons, since July 1, 1912.....	52,910	8,176	438,324	112,136
Castor Beans, bu.....	104,319	67,181	656,458	574,091
Clover Seed, lbs.....	4,983,868	2,060,281	24,655,158	17,092,291
Other Grass Seeds, lbs.....				
Flaxseed, bu.....	274,180	229,578	3,155,168	3,836,301
Beans, etc., bu.....	58,961	62,718	522,311	770,647

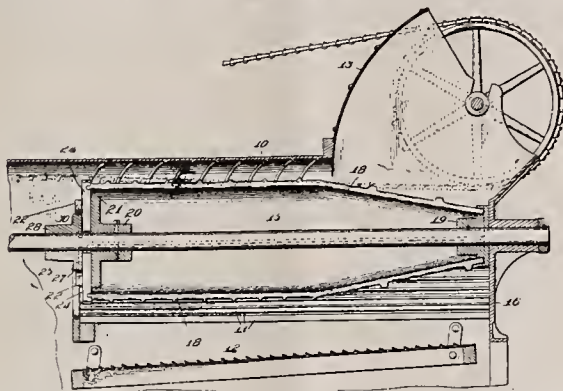
GRAIN TRADE PATENTS

Issued on March 11, 1913

Conveying Apparatus for Charging Gins and Hoppers.—Henry Norman Leask, Egremont, England. Filed December 30, 1910. No. 1,055,926.

Corn Sheller.—Henry A. Adams, Sandwich, Ill., assignor to the Sandwich Manufacturing Company, a corporation of Illinois. Filed January 3, 1911. No. 1,055,436. See cut.

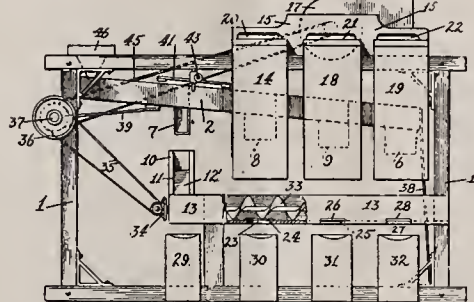
Claim.—In a corn sheller, a combination of a cylinder, a shaft journaled longitudinally within the cylinder, a mandrel comprising a plurality of segmental plates extending longitudinally of the shaft



and being pivotally connected therewith adjacent the receiving end of the cylinder, means for radially adjusting the free ends of the plates, and means for securing the plates in their adjusted positions.

Separator.—Lloyd C. Dibert, San Francisco, Cal. Filed April 2, 1912. No. 1,055,722. See cut.

Claim.—A separator comprising a shoe with successive screen-zones of successively increasing mesh, for dividing the material into grades according to size; a cross-chute under each screen-zone to receive the material sifted therethrough; a con-

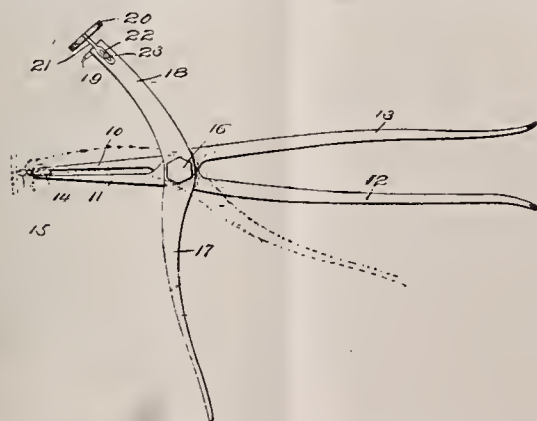


duit for receiving the finest grade from the chute of the first screen-zone, said conduit having a double outlet with a valve adapted to divert the material to either outlet; independent suction wind-trunks, one for each chute of the succeeding screen-zones, adapted to separately receive the successive grades therefrom; means for creating a wind-current through each trunk; means for separately regulating the intensity of each of said wind-currents; and a conveyor trough common to all of said wind trunks and to one of the outlets of the first grade conduit.

Issued on March 18, 1913

Seed Corn Tester.—James M. Sullivan, Norfolk, Neb. Filed March 26, 1912. No. 1,056,307. See cut.

Claim.—In a seed corn testing apparatus, means to grasp a single kernel of corn and withdraw it from a cob, means to clip the germ extremity from



the grasped kernel, and means to simultaneously locate a magnifying member in position for examining the clipped surface of the kernel.

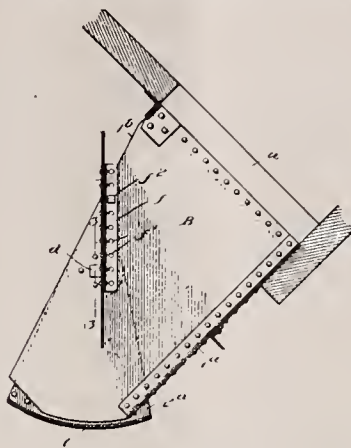
Issued on March 25, 1913

Malt-turning Machine.—Danied D. Weschler, Milwaukee, Wis. Filed February 6, 1912. No. 1,056,869.

Discharge Spout for Bins and Chambers.—David I. Miller, Allens Creek, Tenn. Filed February 27, 1911. No. 1,057,074. See cut.

Claim.—The combination of a storage chamber having a suitable discharge opening, a delivery spout leading therefrom, a fixed diaphragm arranged in said spout intermediate of the discharge opening of the storage chamber and the cut-off, said dia-

phragm terminating above the bottom of the delivery spout to maintain an open passage for material from the storage chamber and being arranged at an oblique angle to the bottom of the spout, thereby

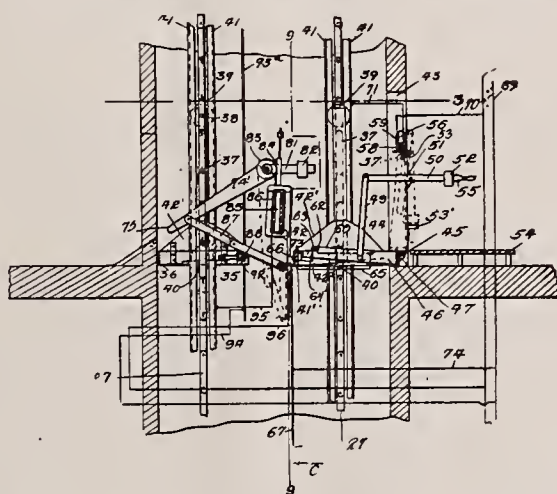


tending to induce an arching of the material in the spout, and a cut-off arranged in the delivery spout below the diaphragm.

Issued on April 1, 1913

Conveyor.—Samuel F. Joor, Morgan Park, Ill., assignor to the Jeffrey Manufacturing Company, Columbus, Ohio, a corporation of Ohio. Filed December 17, 1907. No. 1,057,556. See cut.

Claim.—In a conveying system, guide mechanism, a series of carriers, means for propelling said carriers along said guide mechanism, a series of load-

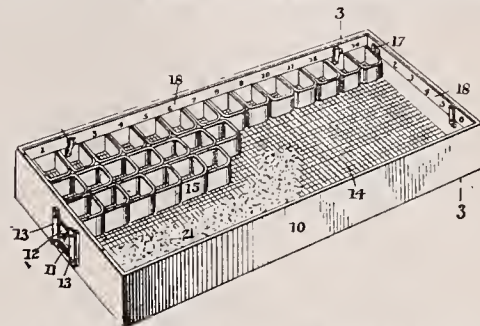


ing stations, loading mechanism at the stations, means for locking each of the loading mechanisms against operation, and means on each of the carriers designed when the carrier is loaded to automatically put each of said locking means into action at a corresponding predetermined part of the path of said carriers.

Adjustable Grain Door.—Heinrich Wilhelm Friedrich Jaeger, Cleveland, Ohio. Filed April 18, 1912. No. 1,057,965.

Seed Tester.—John Morton Peeples, Centralia, Ill. Filed August 27, 1912. No. 1,057,877. See cut.

Claim.—In a device of the class described, the combination of a pan provided with openings, closures mounted to slide on the said pan and adapted

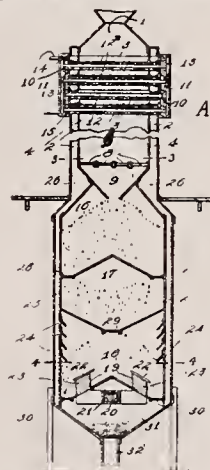


to normally close the said openings, a perforated screen for removable disposal in the said pan, containers, each consisting of a U-shaped piece of material and arranged on the said screen, the sides of the said pan being adapted to constitute a side of each of the containers arranged adjacent to the sides of the pan and a side of each succeeding container being formed by a side of the containers arranged adjacent the sides of the pan and a cover for removable engagement with the said pan to close the same.

Issued on April 8, 1913

Process of Drying Grain.—Lee J. Dennis, Memphis, Tenn. Filed November 23, 1912. No. 1,058,291. See cut.

Claim.—The process of drying grain, which consists in preheating the grain while in bulk with the grains closely associated, then closely confining



the preheated grain in bulk and sweating it by its contained heat, and then slowly cooling and drying the grain by passing through it a cooling medium capable of taking up its moisture.

OBITUARY

John A. Long, for many years a grain dealer at Chesterville, Ill., is dead.

J. R. Center, a well-known grain man, recently passed away at Clearwater, Kan.

Bryan Coughlin, a member of the Milwaukee Chamber of Commerce, died at his home in Milwaukee in March.

David T. Goldsmith, until recently manager of the Western Grain Company at Fort Smith, Ark., died at his home in Van Buren, Ark.

E. Enfield Walker, aged 76 years, passed away at Gap, Pa., recently. He had been engaged in the grain and warehouse business at Gap.

Charles Chamberlain Gay, formerly a member of the grain firm of Gay & Quimby, died at his home in Albany, N. Y., on March 26, aged 76 years.

J. D. Twinning, a grain dealer at Germantown, Philadelphia, died on March 25. He was one of the oldest members of the Philadelphia Commercial Exchange.

James W. Chandler, aged 63 years, passed away at his home in Haworth, N. J., following a stroke of paralysis. He was a member of the firm of Chandler Bros., grain dealers.

William J. Rae, grain commissioner, died last month, aged 47 years. He had been ill only about two weeks. For 25 years he had been a member of the Merchants' Exchange at St. Louis, Mo.

H. H. Payne, grain dealer, died at his home in Camden, Ohio, on March 12, aged 72 years. For many years he had been engaged in the grain and stock business at Camden, and he was president of

the Camden Commercial Bank. He leaves a widow and two daughters.

Carroll L. Carmine, a member of the Baltimore Chamber of Commerce, died on April 4, aged 32 years. He had been ill but a short time with pneumonia. He was associated with the firm of Crouch & Carmine, bankers and brokers.

R. S. Munger, aged 83 years, died at Duluth, Minn., on March 14. He was one of the charter members of the Duluth Board of Trade and at one time was one of Duluth's most enterprising business men, but several years ago he retired from business activities.

Josiah Stiles, a member of the firm of Jones & Stiles, and also at one time vice-president of the Chicago Board of Trade, passed away in Chicago, on March 26. He was in his seventy-fifth year and was well known by the old-timers in Chicago grain and provision circles.

Col. C. W. Gurney, president of the Gurney Seed Company, died at his home in Yankton, S. D., on March 26. Mr. Gurney was a veteran of the Civil War and for many years had been active in state politics. He was 73 years of age and is survived by a wife and eleven children.

Walter C. Comstock of the grain firm of Walter C. Comstock & Co., Chicago, was struck by a train at St. Joseph, Mich., a few days ago and killed. Mr. Comstock had been a member of the Board of Trade for many years and at one time was a director. He was formerly a member of the firm of Schartz, Dupee & Co., which liquidated several years

ago. His son, James Comstock, is associated with A. J. White & Co.

Captain M. J. Sheridan, for many years Illinois State Grain Inspector is dead. He was a resident of Chicago and at one time was a member of the State Railway and Warehouse Commission.

George Hunt, grain dealer, died recently at his home in Chappaqua, N. Y., where he had been a life-long resident. He was 63 years of age. He was a director of the Mount Pleasant Bank, Pleasantville, N. Y., and for several years served as postmaster of Chappaqua. He is survived by a wife, two daughters and one son.

Livingston T. Dickson, for many years a member of the Chicago Board of Trade, died in Naples, Italy, on March 22, aged 69 years. Mr. Dickson was formerly associated with C. H. Canby & Co., but retired from business activities about three years ago, when he was stricken with paralysis. He left Chicago several weeks ago in search of health. He was a Civil War veteran and formerly lived in Danville, Ill.

CROP REPORTS

THE GOVERNMENT REPORT

The Crop Reporting Board of the Bureau of Statistics, United States Department of Agriculture, estimates from the reports of correspondents and agents of the Bureau, that the average condition of winter wheat on April 1 was 91.6 per cent of a normal, against 80.6 on April 1, 1912, 83.3 on April 1, 1911, and 86.3, the average condition for the past 10 years on April 1. There was a decline in condition from December 1, 1912, to April 1, 1913, of 1.6 points, as compared with an average decline in the past 10 years of 3.6 points between these dates.

The average condition of rye on April 1 was 89.3 per cent of a normal, against 87.9 on April 1, 1912, 89.3 on April 1, 1911, and 90.1, the average condition for the past 10 years on April 1.

Comparisons for winter wheat and rye states are as follows, the figures representing per cent of normal:

State or Division.	—Winter wheat—			—Rye—		
	1913.	1912.	10-yr. av.	1913.	1912.	10-yr. av.
Vermont .....	..	..	..	93	95	95
Massachusetts .....	..	..	..	94	93	93
Connecticut .....	..	..	..	96	93	96
New York	91	89	89	91	90	90
New Jersey	97	88	90	96	89	92
Pennsylvania	96	85	88	95	85	90
N. At. Div.	95.4	86.0	88.3	94.1	87.1	90.4
Delaware .....	..	..	..	96	90	91
Maryland	96	90	89	97	90	91
Virginia	97	89	89	94	88	90
West Virginia	91	89	87	91	91	89
North Carolina	95	87	91	92	89	91
South Carolina	89	83	88	90	85	88
Georgia	91	81	88	92	84	90
S. At. Div.	95.7	88.1	89.0	93.3	88.7	90.2
Ohio	91	63	80	92	72	84
Indiana	91	61	82	92	72	88
Illinois	93	62	85	94	75	90
Michigan	83	80	85	86	86	88
Wisconsin	86	92	90	88	93	93
N. C. East.	90.6	64.5	82.7	88.2	86.1	89.5
Minnesota .....	..	..	..	82	92	90
Iowa	90	91	90	92	93	94
Missouri	93	76	86	93	83	89
North Dakota .....	..	..	..	83	87	..
South Dakota .....	..	..	..	83	90	92
Nebraska	92	93	89	90	95	91
Kansas	90	85	86	92	89	87
N. C. West.	91.1	85.4	86.7	84.7	91.4	90.1
Kentucky	92	70	86	89	75	86
Tennessee	93	81	89	89	82	88
Alabama	94	83	89	91	86	90
Mississippi	89	79	88	..	..	..
Texas	88	88	82	86	80	80
Oklahoma	94	82	82	93	85	85
Arkansas	90	75	87	87	83	88
South Central.	92.3	80.4	84.3	90.3	78.5	86.0
Montana	93	94	..	95	95	96
Wyoming	93	95	..	96	95	94
Colorado	94	92	..	93	93	89
New Mexico	80	91	..	..	94	..
Arizona	96	94	..	..	95	..
Utah	95	93	..	93	90	99
Nevada	95	97	..	..	97	..
Idaho	94	97	97	94	97	98
Washington	94	96	92	96	97	95
Oregon	90	98	93	94	100	97
California	72	80	91	85	85	92
Far Western.	90.4	93.7	91.9	92.7	94.4	93.2
United States.	91.6	80.6	86.3	89.3	87.9	90.1

It is said that the flood in Indiana and Ohio has not caused the damage which was first supposed. The majority of reports say there is no abandoned acreage and the appearance of the wheat crop generally is very good.

Corn promises to be a bigger crop than ever in the northwest this year, according to A. H. Poehler of the Minneapolis Chamber of Commerce. Not only will the natural corn growing country of southern and central Minnesota, South Dakota, northern Iowa and eastern Nebraska plant much corn this year, but North Dakota will probably put in more corn by far than ever before. North Dakota raised a good corn crop last year. It was not large by comparison with the big corn states, but for North Dakota it was a big one. Not only was it a profit-

able crop, but the people of North Dakota are rather proud of what they did, because there used to be an idea, and it still maintains to some extent, that the state is too far north for corn.

The outlook for a big grain crop this year in Texas is better than for several years past, according to Acting Secretary Dorsey of the Texas Grain Dealers' Association. He says the wheat acreage is less than that of last year, but the acreage in oats has been considerably increased. It is expected that more rain will be necessary to ripen the crop in most sections. In the Panhandle, where recent cold spells were most severe, the small grain fields are not looking as well as they should at this season of the year.

PRICES OF AGRICULTURAL PRODUCTS

The average of prices received by producers of the United States for staple crops increased 0.3 per cent from March 1 to April 1, which compares with an increase of 6.0 per cent in the same period a year ago and an average increase of 2.1 per cent during March of the past five years. On April 1 prices of staple crops averaged about 25.9 per cent lower than on like date of 1912, 3.7 per cent lower than in 1911, 18.2 per cent lower than 1910, and 13.0 per cent lower than 1909, on like date.

The average prices received by producers in this country for articles named, on dates indicated, according to reports made by correspondents of the Bureau of Statistics of the U. S. Department of Agriculture were as follows:

Product.	Apr. 1, 1913.	Mar. 1, 1913.	Apr. 1, 1912.	Apr. 1, 1911.	Apr. 1, 1910.
Corn, per bu., cents..	53.7	52.2	71.1	49.7	65.5
Wheat, per bu., cents	79.1	80.6	92.5	83.8	104.5
Oats, per bu., cents..	33.1	33.1	52.0	32.3	45.6
Barley, per bu., cents	48.5	48.9	92.3	69.1	59.7
Rye, per bu., cents..	62.9	63.2	85.1	75.4	76.6
Buckwheat, per bu.,	..	..	..	..	..
cts.	68.3	67.0	76.9	65.3	73.4
Flaxseed, per bu., cts.	113.6	119.0	191.3	234.6	193.9
Hay, per ton, dollars	11.15	11.34	16.79	11.89	12.73
Mar. 15, Feb. 15, Mar. 15, Mar. 15, Mar. 15,	1913.	1913.	1912.	1911.	1910.
Beans, per bu., \$	2.10	2.19	2.42	2.17	2.17
Clover seed, per	..	..	..	..	..
bu.	10.42	10.28	12.89	8.56	8.15
Timothy, per bu	1.72	1.78	7.33	4.93	..
Alfalfa, per bu..	8.19	8.15	..	..	..
Hops, per lb....	..	..169	..401	..192	..184

The monthly bulletin of the State Board of Agriculture of Oklahoma made public on April 3 shows that not in many years, and probably not in the history of the state, has growing wheat been in better condition than at present. The Board estimates that condition now at 91.4 per cent, compared with 76.6 last April. The abundance of moisture during the winter has brought about the excellent results. Other crops are also in fine condition. The present condition of the soil, as regards moisture, is placed at 94.3 per cent.

Bartlett, Frazier & Co., Chicago, have the following report from B. W. Snow under recent date:

"Wheat throughout eastern, central and north part of Kansas is small in growth, but deep-rooted—a perfect stand. The plant is well stooled and covers the ground like a mat. Moisture ample and present prospect is above an average. In Norton and Decatur Counties about half the crop is strong and vigorous, the balance very small, a large part barely through the ground and did not germinate until after the snow of March 1. The top soil is dry, but plenty of moisture around the roots. Winds are doing some damage, but if the weather holds favorable this late wheat will be all right. A large acreage in Thomas and Sheridan Counties has been destroyed by blowing out of the ground. One strip twenty miles wide is as bare as a desert, but West and South the loss up to this time is relatively small; all these counties have a much larger acreage than was harvested last year."

Finley Barrell & Co. of Chicago received a report from George Le Count recently, as follows: "After an examination of a lot of best wheat territory in Kansas and Oklahoma, I find the best prospects I have ever seen at this time of the year. All wheat seen in Oklahoma and central and eastern Kansas

was in perfect condition. Western Kansas is not so good, although prospects are better than usual, as there is a fair stand, with surface moisture enough for ten days or more, while an inch or two below the surface the soil is wet. Traces of Hessian fly are found in eastern and southeastern Kansas, but not numerous enough to cause anxiety, and they are present every year. Kansas faces a weather proposition; if they get good rains in reasonable time they have prospects for a banner crop. There is less abandoned acreage to date than any year since I have been on the road. Oats are coming up and looking fine, with acreage about same as last year. Never saw so much old corn in cribs as I saw when passing through Iowa. Wheat is moving freely. I see teams on the road and in town every day loaded with wheat, and farmers report quite a lot of wheat still on farms in Kansas."

DIRECTORY OF COMMERCIAL ORGANIZATIONS

In response to a Senate resolution passed December last, the Department of Commerce has submitted to the Senate a list of the commercial organizations in the United States. This record, with a list of agricultural organizations, will be printed for distribution, provision being made for 1,500 copies for the use of the Senate. The list of commercial organizations was prepared by the Bureau of Foreign and Domestic Commerce, which for nearly two years has been collecting for use in its own work detailed information regarding such organizations, their functions, membership, income, etc. The information in the files of the Bureau at the time the resolution was adopted was supplemented by such additional facts as it was impossible to obtain before February 15, the date on which the list was to be submitted to the Senate, and this list when published will record about 3,500 national, interstate, state and local organizations.

In the compilation of its information the Bureau has utilized various symbols to indicate the field of service and the activities of the various organizations. These symbols have been used in the list submitted to the Senate, so that when published it will furnish in a concise manner a complete record of the organizations, their functions, membership and other details. The information thus compiled constitutes a directory of commercial organizations of the country such as has never before been prepared, and it should prove of practical value to business men. In addition to the 1,500 copies to be printed for the use of the Senate, the list will be issued as a bulletin of the Bureau of Foreign and Domestic Commerce (Miscellaneous Series No. 8). Copies of this bulletin will be sold for 15 cents a copy by the Superintendent of Documents, Government Printing Office, Washington, D. C.

The Board of Grain Commissioners of Canada have been authorized by the government to investigate conditions and possibilities of the Canadian milling industry and determine the best means for its development.

The Iowa Legislature is considering a bill for appropriating \$5,000 to the Iowa Corn and Small Grain Association to aid that body in its educational work and also help defray the expenses of an annual exposition.

For Sale

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

ELEVATORS AND MILLS

ELEVATORS FOR SALE

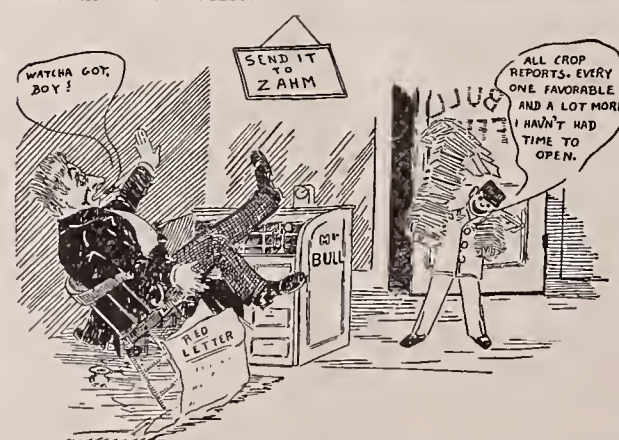
Only elevators at two good Kansas wheat stations. Write J. JACOBSON, Formoso, Kan.

MICHIGAN BARGAIN

An 8,000-bushel elevator, warehouse and bean room on acre of land. If interested, write REAL ESTATE EXCHANGE, Stanton, Mich.

HOW TO SELL YOUR ELEVATOR

If you wish to sell your elevator promptly and quietly, write me, giving all the information. Must be worth the money. JAMES M. MAGUIRE, Campus, Ill.



From Zahm's Red Letter, April 5.

THIS IS THE SEASON OF CROP REPORTS

ELEVATORS AND MILLS

ELEVATORS FOR SALE

Have a nice lot to select from at prices from \$3,000 up. Write and let me know how much you wish to pay. Am sure I can suit. JAMES M. MAGUIRE, Campus, Ill.

MUST SELL TO CLOSE ESTATE

A 10,000-bushel modern elevator, not two years old. Capacity easily doubled, if desired. Rich wheat country; big flour business; seed, feed, fuel and good side lines. On Wabash R. R. in Missouri. MODERN ELEVATOR, Box 2, care "American Elevator and Grain Trade," Chicago, Ill.

FINE TERMINAL PLANT FOR SALE

Grain Elevator property for sale at Harvey, Ill., on Grand Trunk Railroad. Description: 10 fire-proof storage tanks, capacity 250,000 bushels; bleaching tower; boiler house and boiler; office; motors; machinery; electric switches; concrete foundation for working house, etc. Direct and belt connections with all railroads. Address H. W. ROGERS & BRO., Western Union Bldg., Chicago, Ill.

MACHINERY

FOR SALE AT A SACRIFICE

One brand new 14-18 Ann Arbor Hay Press. W. T. BABCOCK, Marengo, Ohio.

FOR SALE

A 40-horsepower St. Mary's Oil Engine; new, used seven months; price \$650. GEO. A. PECKENS, Fowlerville, Mich.

FOR SALE

One 25-horsepower Atlas Steam Engine and a 30-horsepower Erie Boiler. Western Pitless Sheller. F. A. OLIVE, Amoret, Mo.

GASOLINE ENGINES FOR SALE

Power users—write for our big bargain list of used gas and gasoline engines before you buy. BADGER MOTOR CO., Milwaukee, Wis.

FOR SALE

One 25-horsepower, Otto Gasoline Engine, in good running order. Price, with battery ignition, \$350; magneto ignition, \$375. THOMPSON & SONS MFG. CO., Beloit, Wis.

FOR SALE

A 50-horsepower gas producer power plant, Fairbanks-Morse make, first-class condition. The most economical power for mills and elevators. The producer is oversize and insures steady and efficient running at all times. Burns hard coal screenings. Have no further use for it and will sell it cheap. Can be seen running. C. E. DINGWALL CO., Milwaukee, Wis.

1913

The Wagner Letters of 1913

will follow the crop raising season with advance reports. Your attention and business is requested. Correspond. Send for May 1913 wheat and corn circulars.

E. W. WAGNER & CO., 99 Board of Trade, CHICAGO

Edward P. McKenna

John A. Rodgers

McKENNA & RODGERS COMMISSION MERCHANTS

Grain and Provisions, Shippers of Corn and Oats

61 Board of Trade, CHICAGO

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carefully executed

Miscellaneous Notices

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

FOR QUICK SALE

An 8,080-acre stock ranch for half its value. For further information, address the owner, A. J. JOHNSON, Merchants' National Bank Bldg., Springfield, Mo.

TEXAS BARGAIN

A 900-acre stock farm on river. Best country home in this part of Texas. All or part; terms. M. H. FRANCIS, Anson, Tex.

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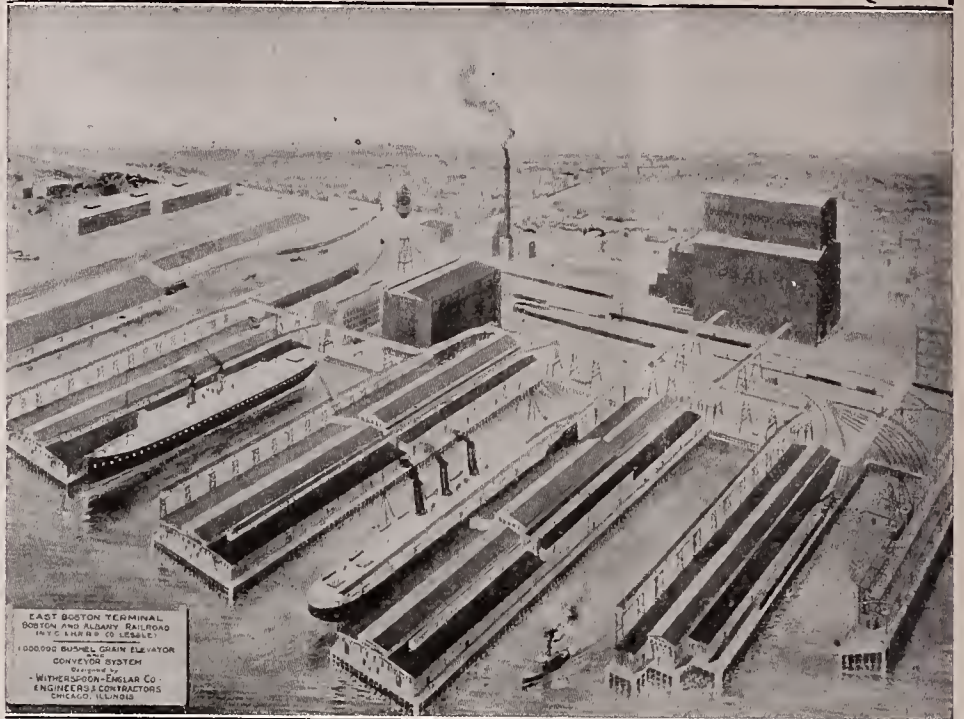


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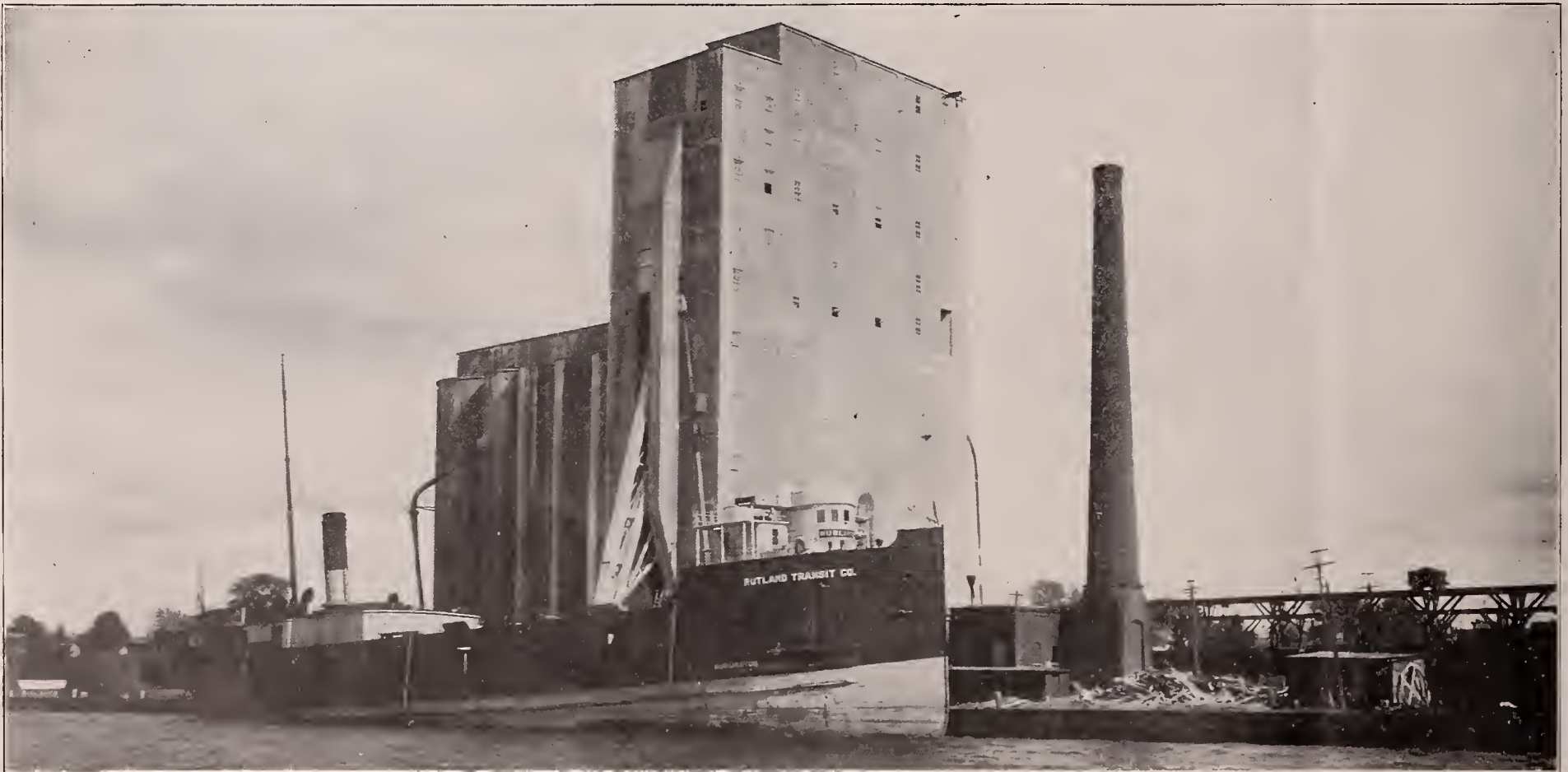
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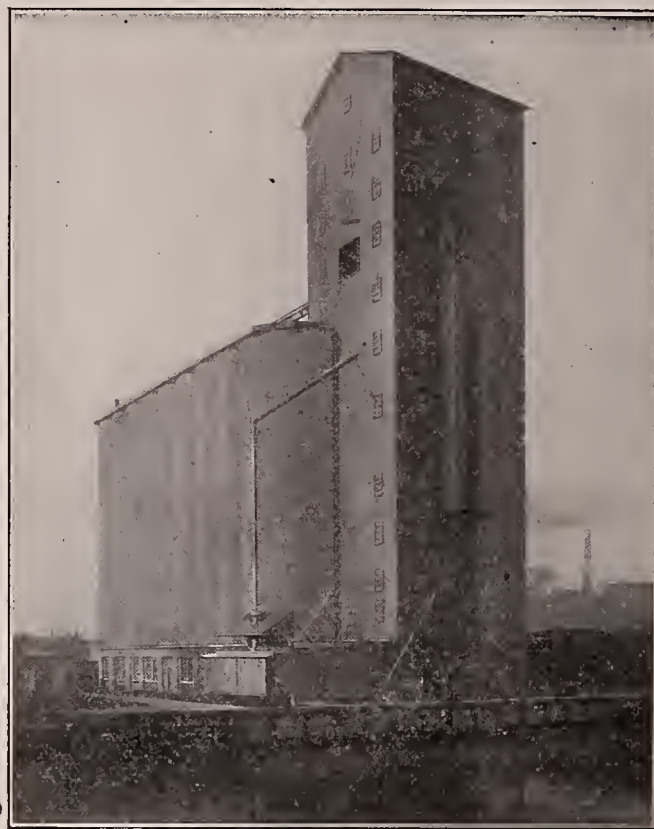


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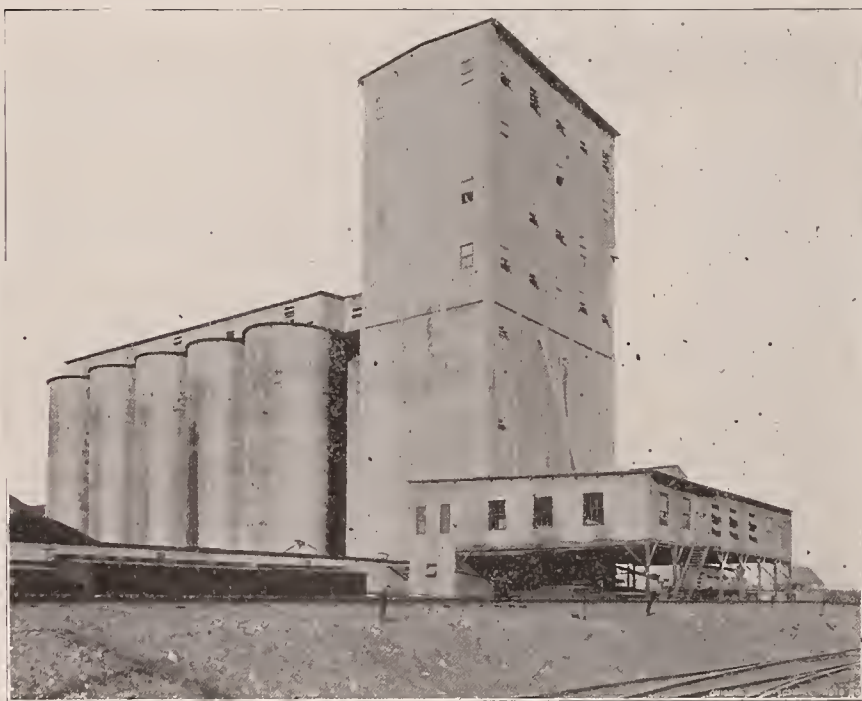


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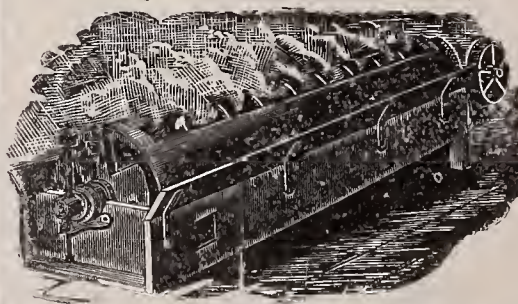
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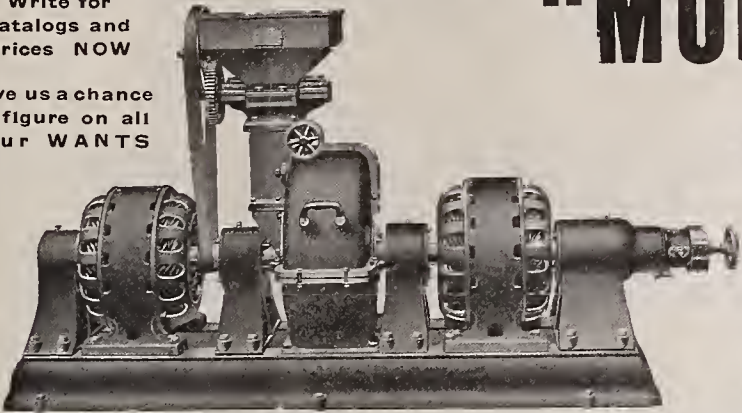
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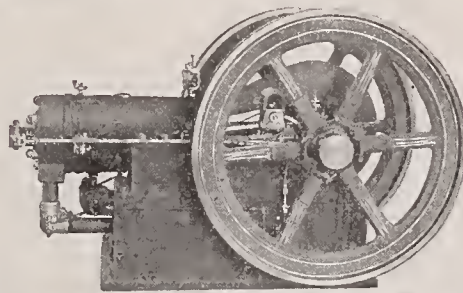
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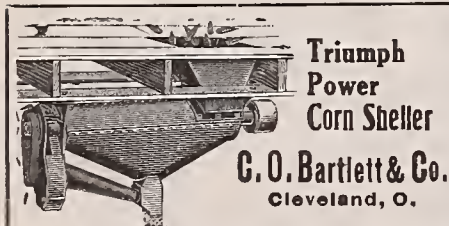
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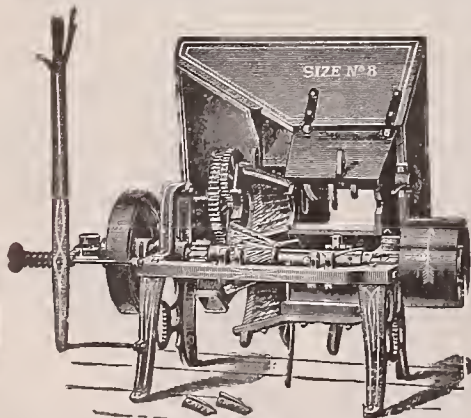


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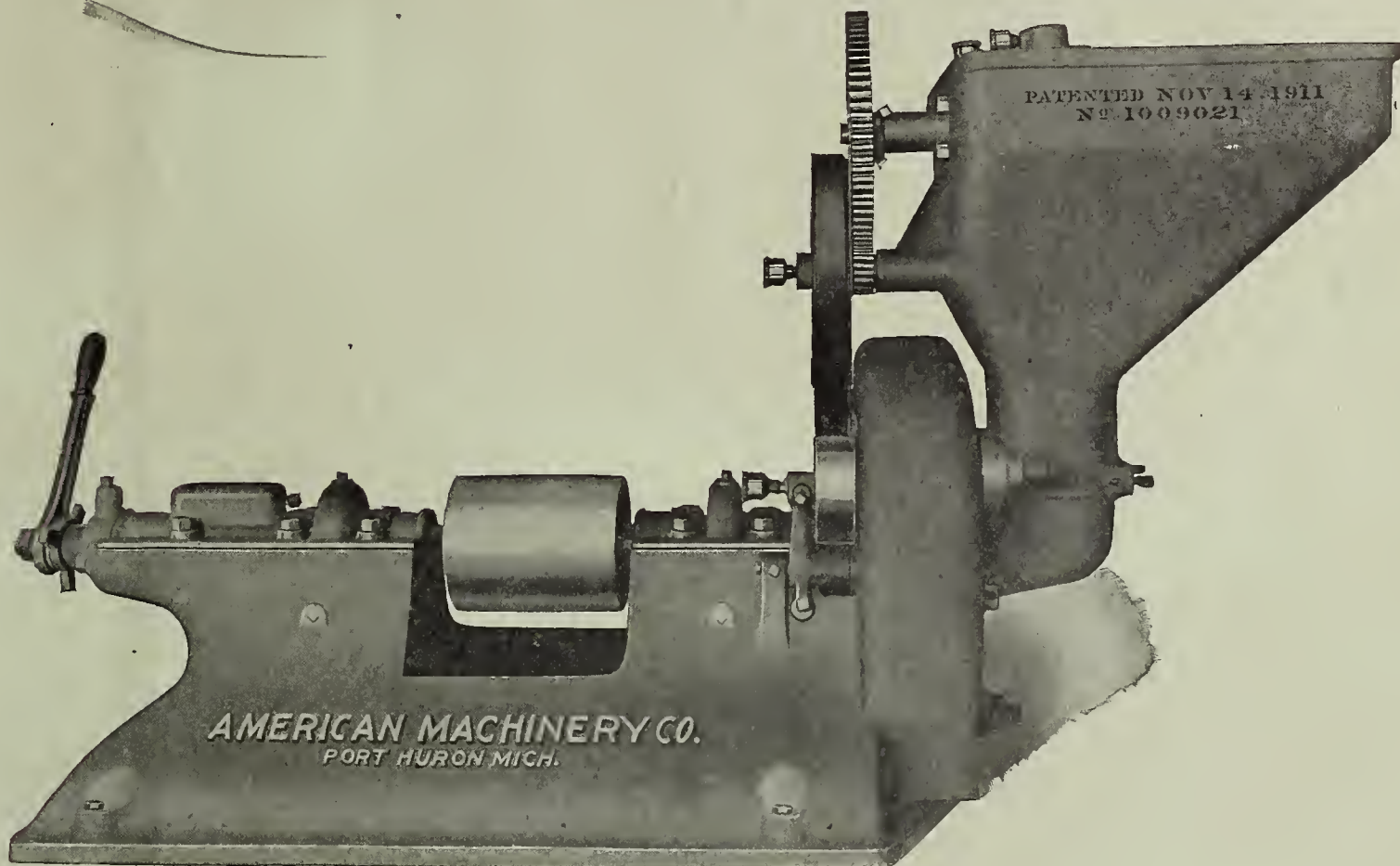
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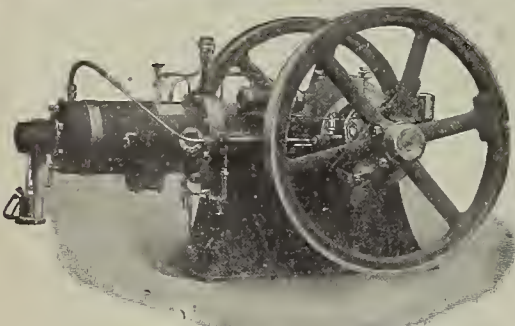
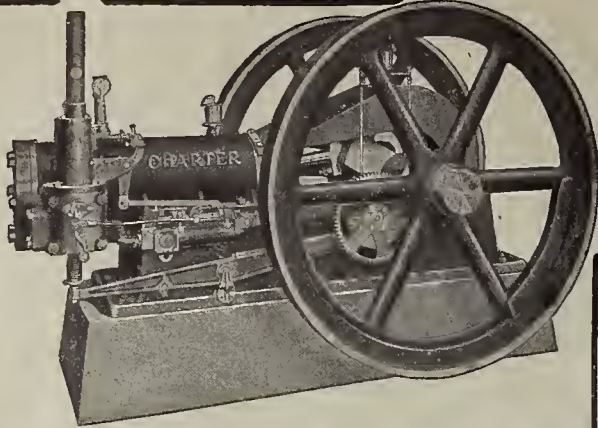
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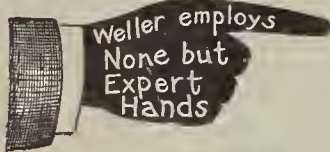
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